DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, KANSAS CITY DISTRICT
635 FEDERAL BUILDING
601 E 12TH STREET
KANSAS CITY MO 64106-2824

REPLY TO ATTENTION OF

November 18, 2011

Environmental Programs Branch
Planning, Programs and Project Management Division

Mr. Ken Rapplean, Remedial Project Manager
U.S. Environmental Protection Agency, Region VII
Superfund Division, Kansas/Missouri Remedial Section
901 N. 5th Street
Kansas City, Kansas 66101

Ms. Stacey Stricker
Nebraska Department of Environmental Quality
The Atrium 1200 N Street
P.O. Box 98922
Lincoln, NE 68509-8922

Dear Mr. Rapplean and Ms. Stricker,

Enclosed for your records is the Final Quarterly Summary Report, Third Quarter 2011 Sampling Events for Operable Unit No. 2 (Groundwater) at the former Nebraska Ordnance Plant. One hard copy of this report is included along with 1 compact disc (CD) in electronic format which includes the Third Quarter Quality Control Summary Reports for 2011 and the raw data on CD. Results letters containing Third Quarter data have been sent to landowners and a hard copy of this report has been posted at the Mead public library. If you have any questions, please contact me at (816) 389-3172 or by email at Kristine.M.Stein@usace.army.mil

Sincerely,

Kristine M. Stein
Project Manager

Printed on Recycled Paper

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE: November 18, 2011	TRANSMITTAL NO. 2011-090

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by contractor)

Attn: Kristine Stein USACE, Kansas City District 601 E. 12th St. Kansas City, MO 64106-2896	FROM: Susan Carter ECC 1746 Cole Blvd, Bldg 21, Lakewood, CO 80401	CONTRACT NO. W912DQ-08-D-0001, Task Order 0002	CHECK ONE: __X__ THIS IS A NEW TRANSMITTAL ____ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SECTION NO. (cover only one section with each transmittal)	PROJECT TITLE AND LOCATION: Operable Unit No. 2 (Groundwater) Former Nebraska Ordnance Plant, Mead, Nebraska		CHECK ONE: ___ FIO __X__ For Govt. Approval

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)* *b.*	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction No. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*	FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruc. no. 6)* *h.*	FOR C E USE CODE *i.*
1	Final Quarterly Summary Report, Third Quarter 2011		1 electronic					

REMARKS

Ken Rapplean (EPA) - 1 copy
Stacey Stricker (NDEQ) - 1 copy
Mead Library

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.
Susan Carter, Denver Science & Engineering Group

Susan Carter

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

FINAL

QUARTERLY SUMMARY REPORT
THIRD QUARTER 2011 SAMPLING EVENTS

OPERABLE UNIT No. 2 (GROUNDWATER)
FORMER NEBRASKA ORDNANCE PLANT
MEAD, NEBRASKA

Prepared for

United States Army Corps of Engineers
Kansas City District

November 2011

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FINAL
QUARTERLY SUMMARY REPORT
THIRD QUARTER 2011 SAMPLING EVENTS

OPERABLE UNIT No. 2 (GROUNDWATER)
FORMER NEBRASKA ORDNANCE PLANT
MEAD, NEBRASKA

November 2011

I hereby certify that the enclosed *Quarterly Summary Report Third Quarter 2011 Sampling Events*, shown and marked in this submittal, is in compliance with the contract specifications and is submitted for government approval for the former Nebraska Ordnance Plant near Mead, Nebraska.

Reviewed by:

ECC Project Manager 11/18/11 Date

Accepted as a submittal:

USACE Contracting Officer Date

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Objectives 1
2.0 SUMMARY OF THIRD QUARTER 2011 GROUNDWATER MONITORING WELL SAMPLING EVENT 2
2.1 Field Sampling 2
2.2 Analytical Results 2
2.3 Groundwater Monitoring Well Summary 3
3.0 SUMMARY OF THIRD QUARTER 2011 WATER SUPPLY WELL SAMPLING EVENT 4
3.1 Field Sampling 4
3.2 Analytical Results 4
3.3 Water Supply Well Summary 5
4.0 SUMMARY OF THIRD QUARTER 2011 SURFACE WATER SAMPLING EVENT 5
4.1 Field Sampling 5
4.2 Analytical Results 5
4.3 Surface Water Summary 5
5.0 SUMMARY OF THIRD QUARTER 2011 OPERATIONS AND MAINTENANCE SAMPLING EVENTS 6
5.1 Field Sampling 6
5.2 Analytical Results 7
5.3 Operations and Maintenance Summary 7
6.0 DATA VALIDATION RESULTS 7
7.0 THIRD QUARTER 2011 GROUNDWATER MONITORING PROGRAM AND OPERATIONS AND MAINTENANCE SAMPLING EVENTS SUMMARY. 8
8.0 REFERENCES 8

LIST OF TABLES

Table 1-1 Final Target Groundwater Cleanup Goals
Table 2-1 Perimeter Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 2-2 Compliance Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 2-3 LL1 Interior Plume Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 2-4 LL2 and LL3 Interior Plume Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 2-5 LL4, AMA, and Landfill Interior Plume Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 2-6 Focused Extraction Monitoring Wells at the FEW-11, FEW-14 and FEW-15 Sites Results for Third Quarter 2011 Sampling Event
Table 2-7 Upgradient, Downgradient, and Sidegradient Monitoring Wells Results for Third Quarter 2011 Sampling Event
Table 3-1 Water Supply Well Results for Third Quarter 2011 Sampling Event
Table 4-1 Surface Water Results for Third Quarter 2011 Sampling Event
Table 5-1 Operations and Maintenance Results for Third Quarter 2011 Sampling Events

LIST OF FIGURES

Figure 2-1 Monitoring Well Third Quarter 2011 Sampling Locations
Figure 3-1 Water Supply Well Third Quarter 2011 Sampling Locations
Figure 4-1 Surface Water Third Quarter 2011 Sampling Locations
Figure 5-1 Operations and Maintenance Third Quarter 2011 Sampling Locations

LIST OF APPENDICES

Appendix A Concentration Trend Charts for Select Monitoring Wells

Appendix B Concentration Trend Charts for Select Water Supply Wells

Appendix C Concentration Trend Charts for Select Surface Water Locations

Appendix D Quality Control Summary Report Third Quarter 2011 Groundwater Monitoring Program Sampling Events, Former Nebraska Ordnance Plant (on CD)

Appendix E Quality Control Summary Report Third Quarter 2011 Water Supply Well Sampling Event, Former Nebraska Ordnance Plant (on CD)

Appendix F Quality Control Summary Report Third Quarter 2011 Operations and Maintenance Sampling Events, Former Nebraska Ordnance Plant (on CD)

Appendix G Historical Detections spreadsheet of TCE and RDX for Monitoring Wells, Water Supply Wells and Surface Water Locations (on CD)

LIST OF ACRONYMS AND ABBREVIATIONS

AMA	Atlas Missile Area
AOP	Advanced Oxidation Process
CD	compact disc
COC	contaminant of concern
2,4-DNT	2,4-dinitrotoluene
EPA	Environmental Protection Agency
EW	extraction well
FEW	focused extraction well
GAC	granular activated carbon
GCW	groundwater circulation well
g/m^3	grams per cubic meter
GMP	Groundwater Monitoring Program
GTP	Groundwater Treatment Plant
LL	Load Line
µg/L	micrograms per liter
$\mu g/m^3$	micrograms per cubic meter
MS/MSD	matrix spike/matrix spike duplicate
MW	monitoring well
NPDES	National Pollutant Discharge Elimination System
NDEQ	Nebraska Department of Environmental Quality
NOP	Nebraska Ordnance Plant
O&M	operations and maintenance
QC	quality control
QCSR	Quality Control Summary Report
OU	Operable Unit
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
ROD	Record of Decision
TCE	trichloroethene
TNB	1,3,5- trinitrobenzene
TNT	2,4,6-trinitrotoluene
VOC	volatile organic compound
WSW	water supply well

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1.0 INTRODUCTION

This *Quarterly Summary Report Third Quarter 2011* summarizes and discusses the results of the groundwater monitoring wells (MW), water supply wells (WSW), surface water, and operations and maintenance (O&M) locations sampled during the Third Quarter 2011 at the former Nebraska Ordnance Plant (NOP). Historical data and information prior to 2010 are presented in various documents including the *Supplemental Remedial Investigation/Feasibility Study, Operable Unit No. 1* (SEC Donohue, 1992); the *Remedial Investigation Report, Operable Unit No. 2 (Groundwater)* (Woodward-Clyde, 1993a); the *Draft Additional Field Investigation Report Operable Unit No. 2 (Groundwater)* (Woodward-Clyde, 1993b); and a series of Groundwater Monitoring Program (GMP) and O&M Annual Reports from 2000 through 2010.

This report contains the following Appendices:

- Appendix A contains the Concentration Trend Charts for Select Monitoring Wells;
- Appendix B contains the Concentration Trend Charts for Select Water Supply Wells;
- Appendix C contains the Concentration Trend Charts for Select Surface Water Locations;
- Appendix D contains the Quality Control Summary Report Third Quarter 2011 Groundwater Monitoring Program Sampling Events (on CD);
- Appendix E contains the Quality Control Summary Report Third Quarter 2011 Water Supply Well Sampling Event (on CD);
- Appendix F contains the Quality Control Summary Report Third Quarter 2011 Operations and Maintenance Sampling Events (on CD); and
- Appendix G contains the historical spreadsheet of all trichloroethene (TCE) and hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) results for the groundwater sampling program sampling events (on CD).

The following sections 2.0, 3.0, and 4.0 are an Operable Unit (OU) 2 Record of Decision (ROD) Contaminants of Concern (COCs) and other site specific compound summary of results for the Third Quarter 2011 sampling event.

1.1 Objectives

The objectives of the GMP and O&M activities were established in the *Site-Wide Work Plan* (ECC, 2009a), which includes the Field Sampling Plan. The objectives consist of the following:

- To monitor and evaluate potential changes in the concentrations of contaminants of concern (COCs), as shown on Table 1-1 and defined in the *Record of Decision, Operable Unit No. 2, Former Nebraska Ordnance Plant, Mead, Nebraska* (Woodward-Clyde, 1996);
- To monitor and evaluate the concentration of groundwater plumes;
- To provide data for evaluating whether plume(s) are being contained by the groundwater extraction well network; and
- Treat and discharge extracted groundwater to meet applicable standards.

2.0 SUMMARY OF THIRD QUARTER 2011 GROUNDWATER MONITORING WELL SAMPLING EVENT

The following sections are a summary of the groundwater monitoring wells from the Third Quarter 2011 sampling event.

2.1 Field Sampling

Samples from 221 monitoring wells were collected during the Third Quarter 2011 monitoring well sampling event and are summarized below:

- Two hundred three monitoring wells were sampled for volatile organic compounds (VOCs);
- One hundred ninety-one monitoring wells were sampled for explosives;
- Twenty field duplicate samples (passive collection) and one field duplicate samples (low-flow collection) were collected;
- Twelve matrix spike (MS)/matrix spike duplicate (MSD) pairs were collected;
- Four rinsate blank was collected from sampling equipment used to sample monitoring wells (low-flow collection); and
- Eleven trip blanks were included with the volatile shipments.

Samples from all 221 monitoring wells were collected using passive sampling technology. Low - flow sampling was also conducted at monitoring well clusters MW-85, MW-100, MW-153, MW-154, MW-155, and MW-158 for a comparison of the low flow sampling results versus passive sampling results.

2.2 Analytical Results

The Third Quarter 2011 groundwater monitoring well validated analytical results for all site specific compounds are presented in Tables 2-1 through 2-7. Figure 2-1 illustrates all monitoring wells sampled during the Third Quarter 2011 sampling event. Monitoring well results are presented based on the following well categories defined in the 2011 GMP Plan included in the *Final Site-Wide Work Plan, Support Services, Former Nebraska Ordnance Plant, Mead, Nebraska Attachment 1 Field Sampling Plan, Appendix L* (ECC, 2009):

- Perimeter monitoring wells;
- Compliance monitoring wells;
- Interior Plume monitoring wells in the Load Line (LL)1 contaminant plume;
- Interior Plume monitoring wells in the LL2 and LL3 contaminant plumes;
- Interior Plume monitoring wells in LL4 contaminant plume, which includes the landfill and Atlas Missile Area (AMA) areas;
- Focused Extraction monitoring wells at the focused extraction well (FEW)-11, FEW-14, and FEW-15 sites; and
- Upgradient, Sidegradient and Downgradient monitoring wells.

The following is a summary of the former NOP monitoring well categories sampled during the Third Quarter 2011 sampling event:

- Sixty-eight Perimeter monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-1);
- Thirty-three Compliance monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-2);
- Twenty-two LL1 Interior Plume monitoring wells monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-3);
- Eleven LL2 and LL3 Interior Plume monitoring wells monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-4);
- Fourty LL4, AMA, and landfill Interior Plume monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-5);
- Twenty-two Focused Extraction monitoring wells were sampled (detected results for site specific compounds are presented in Table 2-6); and
- Thirteen Upgradient, Sidegradient and Downgradient monitoring wells were sampled (detected results for site-specific compounds are presented in Table 2-7).

2.3 Groundwater Monitoring Well Summary

The following is a summary of the groundwater monitoring well results for the Third Quarter 2011 sampling event:

- Explosives COCs were detected in 24 Perimeter monitoring wells. All explosives detections were below the Final Target Groundwater Cleanup Goals. TCE exceeded the Final Target Groundwater Cleanup Goals in MW-116B at 6.4 micrograms per liter (µg/L). No additional VOCs were detected in the Perimeter monitoring wells. Results for all Perimeter monitoring wells are presented in Table 2-1.
- Explosives COCs were detected in five of the Compliance monitoring wells sampled during the Third Quarter 2011 sampling event. All explosives detections were below the Final Target Groundwater Cleanup Goals. VOCs were detected in one of the Compliance monitoring wells sampled. The detection did not exceed the Final Target Groundwater Cleanup Goals. Results for all Compliance monitoring wells are presented in Table 2-2.
- RDX,1,3,5- trinitrobenzene (TNB), 2,4,6-trinitrotoluene (TNT), and TCE exceeded the Final Target Groundwater Cleanup Goals in the LL1 Interior Plume monitoring well locations. Additional site specific compounds were detected including COCs detected below the Final Target Groundwater Cleanup Goals in the LL1 Interior Plume monitoring wells. Results for all LL1 Interior Plume monitoring wells are presented in Table 2-3.
- RDX exceeded the Final Target Groundwater Cleanup Goals in the LL2 and LL3 Interior Plume monitoring well locations. Additional site specific compounds were detected including COCs detected below the Final Target Groundwater Cleanup Goals in the LL2 and LL3 Interior Plume monitoring wells. Results for all LL2 and LL3 Interior Plume monitoring wells are presented in Table 2-4.

- RDX and TCE exceeded the Final Target Groundwater Cleanup Goals in the LL4, AMA and landfill Interior Plume monitoring well locations. Additional site specific compounds were detected including COCs detected below the Final Target Groundwater Cleanup Goals in the LL4 and AMA Interior Plume monitoring wells. Results for all LL4 and AMA Interior Plume monitoring wells are presented in Table 2-5.
- RDX and TCE exceeded the Final Target Groundwater Cleanup Goals in the Focused Extraction monitoring well locations. Additional site specific compounds were detected including COCs detected below the Final Target Groundwater Cleanup Goals in the Focused Extraction monitoring well location. Results for all Focused Extraction monitoring well locations are presented in Table 2-6.
- Explosives COCs were detected in five of the Upgradient, Sidegradient and Downgradient monitoring wells sampled during the Third Quarter 2011 sampling event. All explosives detections were below the Final Target Groundwater Cleanup Goals. Results for all Upgradient, Sidegradient and Downgradient monitoring wells are presented in Table 2-7.

Historical results are presented for all sampling locations in Appendix G. Appendix A contains trending charts for monitoring wells sampled during the Third Quarter 2011 sampling event. All trending charts require four or more data points to be included in this report.

3.0 SUMMARY OF THIRD QUARTER 2011 WATER SUPPLY WELL SAMPLING EVENT

The following sections are a summary of the water supply wells from the Third Quarter 2011 sampling event.

3.1 Field Sampling

During the Third Quarter 2011 water supply well sampling event, 73 water supply well locations were sampled. In addition, the following samples were collected:

- Eight field duplicate samples;
- Four MS/MSD samples; and
- Five trip blanks.

3.2 Analytical Results

The Third Quarter 2011water supply well validated analytical results for site-specific compounds are presented in Table 3-1. Figure 3-1 illustrates the water supply wells sampled during the Third Quarter 2011 sampling event.

The sampling location at WSW-116 was not accessible to the field crew at the time of sampling and a sample compliant with work plan requirements could not be obtained. Samples collected from the before granular activated carbon sampling location at WSW-52C-B in July 2011 were non-detect for all site specific compounds. WSW-52C-B is an interior plume location where detects are expected. This location was resampled in September 2011 due to the suspect results.

The September 2011 sampling results were more representative of this interior plume location and will be reported.

3.3 Water Supply Well Summary

During the Third Quarter 2011water supply well sampling event, there were multiple detections of COCs and other site specific compounds. There were no detections of COCs exceeding the Final Target Groundwater Cleanup Goal in any after GAC treatment system samples or any other samples collected during the Third Quarter 2011 water supply well sampling event. TCE and/or RDX exceeded the Final Target Groundwater Cleanup Goal prior to granular activated carbon (GAC) treatment systems at three sampling locations (WSW-52C-B, WSW-53B, and WSW-54B). Results for the water supply wells sampled during the Third Quarter 2011 sampling event are presented in Tables 3-1. Historical results are presented for all sampling locations in Appendix G. Appendix B contains trending charts for water supply wells sampled during the Third Quarter 2011 sampling event. All trending charts require four or more data points to be included in this report.

4.0 SUMMARY OF THIRD QUARTER 2011 SURFACE WATER SAMPLING EVENT

The following sections are a summary of the surface water from the Third Quarter 2011 sampling event.

4.1 Field Sampling

During the Third Quarter 2011 surface water sampling event, 12 surface water locations were sampled. All samples were collected as planned. In addition, the following samples were collected:

- Two field duplicate samples;
- One MS/MSD sample; and
- One trip blank.

4.2 Analytical Results

The Third Quarter 2011 surface water validated analytical results for site-specific compounds are presented in Table 4-1. Figure 4-1 illustrates all surface water locations sampled during the Third Quarter 2011 sampling event.

4.3 Surface Water Summary

During the Third Quarter 2011 surface water sampling event there were no detections of COCs exceeding the site-specific surface water standards. TCE results are compared to the Nebraska Department of Environmental Quality (NDEQ) surface water criteria (chronic) “for the protection of aquatic life and their uses (e.g., fish consumption)”, which is 810 micrograms per liter (μg/L) (NDEQ, 2009). This source does not establish a value for RDX. Therefore, RDX analytical results for surface water samples are compared to the Final Effluent Limitations

Monitoring Requirements provided by the State of Nebraska on October 5, 1998, which is 100 μg/L (NDEQ, 1998). Results for all surface water locations sampled during the Third Quarter 2011 are presented in Tables 4-1. Historical results are presented for all sampling locations in Appendix G. Appendix C contains trending charts for surface water wells sampled during the Third Quarter 2011. All trending charts require four or more data points to be included in this report.

5.0 SUMMARY OF THIRD QUARTER 2011 OPERATIONS AND MAINTENANCE SAMPLING EVENTS

The following sections are a summary of the O&M from the Third Quarter 2011 sampling event.

5.1 Field Sampling

During the Third Quarter 2011 O&M sampling events, the following field samples were collected:

- Water samples were collected from each of the following extraction wells (EWs) and focused extraction wells (FEWs) during the Third Quarter 2011 O&M sampling event: EW-1, EW-3, EW-4, EW-6, EW-7, EW-9, FEW-11, FEW-14, and EW-16. All FEW-15 samples are collected at the LL4 influent sample location.
- During July 2011, one water sample was collected from each of the following GAC units: 320, 340, 360, and 380.
- During August 2011 (July 28, 2011), one water sample was collected from the following GAC units: 310, 330, 350, and 380.
- During September 2011, one water sample was collected from the following GAC units: 310, 330, and 350.
- One influent water sample and one effluent water sample were collected from the Main Groundwater Treatment Plant (GTP) during each month of this quarter.
- One influent water sample and one effluent water sample were collected from groundwater circulation well (GCW)-1 on September 1, 2011.
- One influent sample and one effluent sample were collected from the LL1 GTP during each month of this quarter as well as two field duplicate samples (one influent sample and one effluent sample) during August 2011.
- One effluent air sample was collected at the LL1GTP during August 2011.
- One influent sample and one effluent sample were collected from the LL4 GTP during each month of this quarter.
- One effluent air sample was collected at the LL4 GTP during September 2011.
- One influent sample and one effluent sample were collected from the Advanced Oxidation Process (AOP) GTP facility during each month of the Third Quarter 2011 sampling event with the exception of the August sampling event. Only the effluent sample was collected in August as the associated influent water sample was collected from FEW-11.

A trip blank was included in each shipment that contained field samples scheduled for VOC analysis. The required frequency of collection for quality control (QC) samples (field duplicate

and MS/MSD is one per quarter. At least one QC field duplicate sample and one MS/MSD for each parameter, except total suspended solids, were collected for the O&M sampling events. Field duplicates and MS/MSD samples were not collected for the AOP or LL4 sampling events.

5.2 Analytical Results

The Third Quarter 2011 O&M validated analytical results for site-specific compounds are presented in Table 5-1. Figure 5-1 illustrates all O&M locations sampled during the Third Quarter 2011.

5.3 Operations and Maintenance Summary

All extracted groundwater was treated on-site using GAC adsorption, AOP, or air stripping during the Third Quarter 2011 O&M sampling events. Treated groundwater was properly disposed of through surface discharge or beneficial re-use. During the Third Quarter 2011 O&M sampling events, there were no detections of TCE or RDX that exceeded the National Pollutant Discharge Elimination System (NPDES) limits in any treatment plant effluent water sample. The TCE air sample results are compared to anticipated TCE concentrations in the influent of the treatment system. Effluent air standards are monitored to ensure the amount of TCE emitted per year remains below the NDEQ permitted threshold of 5 tons/year. All air effluent sampling results are presented in Table 5-1.

6.0 DATA VALIDATION RESULTS

Data from the Third Quarter 2011 GMP and O&M sampling events were validated in accordance with project required criteria and appropriate qualifiers were assigned to data. Data validation for the former NOP was performed in accordance with the *Mead Validation Guidelines* (ECC, 2007), which includes an evaluation of holding times, a comparison of both field and laboratory duplicate results, a review of trip blank results, and an evaluation of other QC measurements reported by the laboratory.

The *Quality Control Summary Report Third Quarter 2011 Groundwater Monitoring Program Sampling Events* is included as Appendix D, *Quality Control Summary Report Third Quarter 2011 Water Supply Well Sampling Event*, is included as Appendix E, and the *Quality Control Summary Report Third Quarter 2011 Operations and Maintenance Sampling Events*, is included as Appendix F. All of these reports are included on CD. These Quality Control Summary Reports (QCSRs) present the following information: locations sampled, planned and actual sample collection and analyses, detailed results of the data validation for all sampling events; including data qualifiers, sample collection summaries, data summary tables, and completeness calculations. Each QCSR contains appendices which include the sample Chain-of-Custody Records; field sampling documents, water quality parameter forms, and daily field logbook pages, data validation qualifiers reference sheet; and the complete analytical laboratory report for the associated sampling events.

7.0 THIRD QUARTER 2011 GROUNDWATER MONITORING PROGRAM AND OPERATIONS AND MAINTENANCE SAMPLING EVENTS SUMMARY.

Based on the results of the Third Quarter 2011 GMP and O&M sampling events, the 2011 Sampling Plans that were previously developed are sufficient and meet the following objectives:

- To monitor and evaluate potential changes in the concentrations of COCs defined in the *Record of Decision, Operable Unit No. 2, Former Nebraska Ordnance Plant, Mead, Nebraska* (Woodward-Clyde, 1996);
- To monitor and evaluate the concentration of groundwater plumes;
- To provide data for evaluating whether the plume(s) are being contained by the groundwater extraction well network; and
- Treat and discharge extracted groundwater to meet applicable standards.

The GMP and O&M sampling programs will continue as planned for the remaining 2011 quarterly sampling events.

8.0 REFERENCES

ECC, 2007. *Mead Validation Guidelines.* 2007

ECC, 2009. *Final Site-Wide Work Plan, Support Services, Former Nebraska Ordnance Plant, Mead, Nebraska*. October.

SEC Donohue, 1992. *Supplemental Remedial Investigation/Feasibility Study, Operable Unit No. 1 Former Nebraska Ordnance Plant, Mead, Nebraska.* September.

Woodward-Clyde, 1993a. *Remedial Investigation Report, Operable Unit No. 2 (Groundwater) for Former Nebraska Ordnance Plant, Mead, Nebraska.* May.

Woodward-Clyde, 1993b. *Draft Additional Field Investigation Report, Operable Unit No. 2 (Groundwater) for Former Nebraska Ordnance Plant, Mead, Nebraska.* October.

Woodward-Clyde, 1996. *Record of Decision, Operable Unit No. 2, Former Nebraska Ordnance Plant, Mead, Nebraska*. Contract No. DACA41-92-C-0023. April.

TABLES

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List of Acronyms for Tables

Term	Definition
µg/L	micrograms per liter
1,2-DCP	1,2-dichloropropane
2,4-DNT	2,4-dinitrotoluene
2ADNT	2-amino-4,6-dinitrotoluene
4ADNT	4-amino-2,6-dinitrotoluene
AOP	Advanced Oxidation Process
CIS-1,2-DCE	cis-1,2-dichloroethene
EFF	effluent
EW	extraction well
GCW	groundwater circulation well
INF	influent
J	estimated
LL	Load Line
MW	monitoring well
ppbv	parts per billion by volume
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
SW	surface water
TCE	trichloroethene
TNB	1,3,5-trinitrobenzene
TNT	2,4,6-trinitrotoluene
Trans-1,2-DCE	trans-1,2-dichloroethene
U	not detected at laboratory limit of detection
UJ	qualified as estimated and not detected at laboratory limit of detection
VOC	volatile organic compound
WSW	water supply well

All results are reported in µg/L

All air results are reported in ppbv

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Table 1-1
Final Target Groundwater Cleanup Goals
Groundwater Monitoring Program
Former Nebraska Ordnance Plant, Mead, Nebraska

COCs	Final Target Groundwater Cleanup Goal (μg/L)
Volatile Organic Compounds	
Methylene chloride	5
1,2-Dichloropropane	5
TCE	5
Explosive Compounds	
Trinitrobenzene (TNB)	0.778
2,4-Dinitrotoluene (2,4-DNT)	1.24
RDX	2
2,4,6-Trinitrotoluene (TNT)	2

Notes: *Source: Woodward-Clyde, Mead ROD, 1996*
Italics = Indicator compounds used to define groundwater contamination at the former Nebraska Ordnance Plant

ug/L = micrograms per liter
COC = contaminant of concern
TCE = trichloroethene
TNB = trinitrobenzene
2,4-DNT = 2,4-dinitrotoluene
TNT = 2,4,6-trinitrotoluene
RDX = hexahydro-1,3,5-trinitro-1,3,5-triazine

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Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-102A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.059 J**
MW-102B	07/28/2011	0.13 U	0.10 U	0.10 U	**0.052 J**	0.10 U	0.10 U
MW-102D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-103A	07/28/2011	0.13 U	0.10 U	**0.057 J**	0.10 U	0.10 U	**0.20 J**
MW-103B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-103D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.077 J**
MW-106A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-106B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.034 J**
MW-106D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-107A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-107B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-107D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-108A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.20 J**
MW-108B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-108D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.077 J**
MW-110A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-110B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-110D	07/28/2011	0.13 U	0.10 U	**0.058 J**	0.10 U	0.10 U	**0.50 J**
MW-112A	08/02/2011	0.13 U	0.10 U	0.10 U	**0.15 J**	0.10 U	0.10 U
MW-112B	08/02/2011	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
MW-113A	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-113B	08/02/2011	0.13 U	0.10 U	0.10 U	**0.34 J**	0.10 U	0.10 U
MW-113D	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-114A	08/29/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
MW-114B	08/29/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
MW-114D	08/29/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-115A	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-115B	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.028 J**
MW-115D	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-116A	07/12/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
MW-116B	07/12/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-116D	07/12/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
MW-117A	07/27/2011	0.13 U	0.10 U	0.10 U	**0.078 J**	0.10 U	0.10 U
MW-117B	07/27/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-117D	07/27/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-118A	07/25/2011	0.13 U	0.10 U	**0.12 J**	**0.95**	0.10 U	0.10 U
MW-118B	07/25/2011	0.13 U	0.10 U	**0.17 J**	**0.94**	0.10 U	0.10 U
MW-147A	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-147B	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-147D	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-159A	07/28/2011	0.13 U	0.10 U	0.10 U	**0.058 J**	0.10 U	0.10 U
MW-159B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-35A	07/25/2011	0.13 U	0.10 U	**0.057 J**	**0.37 J**	0.10 U	0.10 U
MW-35B	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-35D	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-38A	08/02/2011	0.13 U	**0.18 J**	0.10 U	**1.0 J**	**0.11 J**	**0.46 J**
MW-38D	08/02/2011	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
MW-41A	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-41B	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-41D	07/28/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-46A	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-46B	08/02/2011	0.13 U	0.10 U	0.10 U	**0.069 J**	0.10 U	0.10 U
MW-46D	08/02/2011	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-81A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-81B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-81D	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-83A	08/03/2011	0.13 U	0.10 U	0.10 U	**0.11 J**	0.10 U	0.10 U
MW-83B	08/03/2011	0.13 U	0.10 U	0.10 U	**0.089 J**	0.10 U	0.10 U
MW-83D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-84A	08/03/2011	0.13 U	0.10 U	0.10 U	**0.30 J**	0.10 U	**0.027 J**
MW-84B	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-84D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-85A	08/03/2011	0.13 U	0.10 U	0.10 U	**0.90**	0.10 U	**0.032 J**
MW-85B	08/03/2011	0.13 U	0.10 U	**0.11 J**	**1.4**	0.10 U	0.10 U
MW-85D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-95A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-95B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-95D	08/25/2011	0.13 U	0.10 U	0.10 U	**0.055 J**	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-102A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-102B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-102D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-103A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-103B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-103D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-106A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-106B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-106D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-107A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-107B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-107D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-108A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-108B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-108D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-110A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-110B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-110D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-112A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-112B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-113A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-113B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-113D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-114A	08/29/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-114B	08/29/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-114D	08/29/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-115A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-115B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-115D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-116A	07/12/2011	0.25 U	0.25 U	0.25 U	**6.4**	0.25 U	0.25 U
MW-116B	07/12/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-116D	07/12/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-117A	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-117B	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-117D	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-118A	07/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-118B	07/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-147A	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-147B	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-147D	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-159A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-159B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-35A	07/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-35B	07/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-35D	07/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-38A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-38D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-41A	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-41B	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-41D	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-46A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-46B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-1 Perimeter Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-46D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-81A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-81B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-81D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-83A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-83B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-83D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-84A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-84B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-84D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-85A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-85B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-85D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-95A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-95B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-95D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-2 Compliance Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-100A	08/03/2011	0.13 U	0.10 U	0.10 U	**0.083 J**	0.10 U	**0.038 J**
MW-100B	08/03/2011	0.13 U	0.10 U	0.10 U	**0.097 J**	0.10 U	0.10 U
MW-100D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-101A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-101B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-101D	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-158A	07/12/2011	0.13 U	0.10 U	0.10 U	**0.15 J**	0.10 U	0.10 U
MW-158B	07/12/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-158D	07/12/2011	0.12 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
MW-20A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-20B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-20C	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-61A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-61B	08/25/2011	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
MW-61D	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-82A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-82B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-82D	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-86A	08/02/2011	0.13 U	0.10 U	0.10 U	**0.47 J**	0.10 U	0.10 U
MW-86B	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-86D	08/02/2011	0.13 U	0.10 U	0.10 U	**1.6**	0.10 U	0.10 U
MW-88A	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-88B	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-88D	08/02/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-96A	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-96B	08/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-2 Compliance Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-96D	08/25/2011	0.13 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
MW-97A	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-97B	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-97D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-98A	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-98B	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-98D	08/03/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-2 Compliance Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-100A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-100B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-100D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-101A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-101B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-101D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-158A	07/12/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-158B	07/12/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-158D	07/12/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**0.50 J**
MW-20A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-20B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-20C	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-61A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-61B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-61D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-82A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-82B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-82D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-86A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-86B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-86D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-88A	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-88B	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-88D	08/02/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-96A	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-96B	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-2 Compliance Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-96D	08/25/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-97A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-97B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-97D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-98A	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-98B	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-98D	08/03/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-3 LL1 Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-124A	08/23/2011	0.13 U	0.10 U	0.10 U	**0.38 J**	0.10 U	0.10 U
MW-124B	08/23/2011	0.13 U	**0.058 J**	**2.4 J**	**41.0**	**0.11 J**	0.10 U
MW-124D	08/23/2011	0.13 U	0.10 U	0.10 U	**0.088 J**	0.10 U	0.10 U
MW-125A	08/23/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-125B	08/23/2011	0.13 U	0.10 U	**3.6**	**8.0**	**0.10 J**	0.10 U
MW-125D	08/23/2011	0.13 U	0.10 U	**0.089 J**	0.10 U	0.10 U	0.10 U
MW-126A	08/23/2011	0.13 U	0.10 U	**0.053 J**	0.10 U	0.10 U	0.10 U
MW-126B	08/23/2011	0.13 U	**0.16 J**	**13.0**	**17.0**	**0.56**	**0.83 J**
MW-126D	08/23/2011	0.13 U	0.10 U	**0.063 J**	0.10 U	**0.052 J**	0.10 U
MW-127A	08/23/2011	0.13 U	0.10 U	**0.069 J**	**0.33 J**	0.10 U	0.10 U
MW-127B	08/23/2011	0.13 U	**0.52**	**0.74**	**0.51 J**	**0.10 J**	**1.7**
MW-127E	08/23/2011	**0.40 J**	**3.7 J**	**2.1 J**	**11.0 J**	**180 J**	**110 J**
MW-141A	07/19/2011	0.13 U	0.11 U	**0.071 J**	**0.49**	0.11 U	0.11 U
MW-141B	07/19/2011	0.13 U	**4.5**	**9.4 J**	**50.0**	0.10 U	0.10 U
MW-141E	07/19/2011	0.13 U	**0.26 J**	**3.4 J**	**19.0**	0.10 U	0.10 U
MW-142A	07/19/2011	0.13 U	0.10 U	**0.12 J**	**0.43**	0.10 U	0.10 U
MW-142E	08/10/2011	0.13 U	**0.36 J**	**0.20 J**	**0.75 J**	**0.22 J**	**0.099 J**
MW-24A	08/10/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.043 U
MW-24B	08/10/2011	0.14 U	**0.18 J**	**2.4**	**9.2**	0.11 U	0.11 U
MW-90A	08/11/2011	0.13 U	0.10 U	**0.10 J**	**0.32 J**	0.10 U	**0.12 J**
MW-90B	08/11/2011	0.13 U	0.10 U	**0.62**	**0.41 J**	0.10 U	**0.17 J**
MW-90D	08/11/2011	0.13 U	**0.71 J**	**1.1 J**	0.11 U	**0.66 J**	**0.42 J**

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-3 LL1 Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**CIS-1,2-DCE**	**Methylene Chloride**	**TCE**	**TRANS-1,2-DCE**	**Vinyl Chloride**
MW-124A	08/23/2011	2.8 U	**16.0**	2.8 U	**4700**	2.8 U	2.8 U
MW-124B	08/23/2011	9.2 U	**23.0 J**	9.2 U	**14000**	9.2 U	9.2 U
MW-124D	08/23/2011	0.63 U	**5.2**	0.63 U	**860**	0.63 U	0.63 U
MW-125A	08/23/2011	0.50 U	**3.3**	0.50 U	**470**	0.50 U	0.50 U
MW-125B	08/23/2011	1.4 U	**5.2 J**	1.4 U	**2700**	1.4 U	1.4 U
MW-125D	08/23/2011	1.0 U	**2.5 J**	1.0 U	**270**	1.0 U	1.0 U
MW-126A	08/23/2011	4.4 U	**28.0**	4.4 U	**7800**	**8.2 J**	4.4 U
MW-126B	08/23/2011	7.3 U	**15.0 J**	7.3 U	**12000**	7.3 U	7.3 U
MW-126D	08/23/2011	1.5 U	**46.0**	1.5 U	**2200**	1.5 U	1.5 U
MW-127A	08/23/2011	0.25 U	0.25 U	0.25 U	**7.7**	**0.48 J**	0.25 U
MW-127B	08/23/2011	0.25 U	**11.0**	0.25 U	**94.0**	**13.0**	0.25 U
MW-127E	08/23/2011	0.25 U	0.25 U	0.25 U	**7.0**	0.25 U	0.25 U
MW-141A	07/19/2011	5.0 U	**24.0**	5.0 U	**11000**	5.0 U	5.0 U
MW-141B	07/19/2011	3.7 U	**8.5 J**	3.7 U	**8200**	3.7 U	3.7 U
MW-141E	07/19/2011	3.7 U	**18.0**	3.7 U	**10000**	3.7 U	3.7 U
MW-142A	07/19/2011	0.75 U	**2.5 J**	0.75 U	**1400**	0.75 U	0.75 U
MW-142E	08/24/2011	0.38 U	0.38 U	0.38 U	**110**	0.38 U	0.38 U
MW-24A	08/24/2011	1.3 U	**6.5**	1.3 U	**490**	1.3 U	1.3 U
MW-24B	08/24/2011	0.25 U	0.25 U	0.25 U	**22.0**	0.25 U	0.25 U
MW-90A	08/11/2011	0.75 U	**0.85 J**	0.75 U	**840**	0.75 U	0.75 U
MW-90B	08/11/2011	1.1 U	1.1 U	1.1 U	**290**	1.1 U	1.1 U
MW-90D	08/11/2011	0.50 U	**2.1**	0.50 U	**510**	**0.99 J**	0.50 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-4 LL2 and LL3 Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-130A	07/25/2011	0.13 U	0.10 U	**0.11 J**	**1.2**	0.10 U	0.10 U
MW-130B	07/25/2011	0.13 U	0.10 U	0.10 U	**0.45**	0.10 U	0.10 U
MW-130D	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-143B	07/18/2011	0.13 U	**0.28 J**	**1.4**	**4.0**	0.11 U	0.11 U
MW-148B	07/18/2011	0.13 U	**0.11 J**	**4.7**	**46.0**	0.10 U	0.10 U
MW-149A	07/18/2011	0.13 U	0.10 U	**0.43 J**	**9.1**	0.10 U	0.10 U
MW-150A	07/18/2011	0.13 U	0.10 U	**0.59**	**5.2**	0.10 U	0.10 U
MW-150B	07/18/2011	0.14 U	0.11 U	**0.70**	**7.8**	0.11 U	0.11 U
MW-144A	07/19/2011	0.13 U	**0.20 J**	**0.31 J**	**45.0**	0.10 U	0.10 U
MW-144E	07/19/2011	0.13 U	**2.1**	**0.58 J**	**5.8**	0.10 U	0.10 U
MW-145A	07/19/2011	0.13 U	0.10 U	**0.10 J**	**14.0**	0.10 U	0.10 U
MW-145E	07/19/2011	0.13 U	0.10 U	**1.3**	**93.0**	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-4 LL2 and LL3 Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**CIS-1,2-DCE**	**Methylene Chloride**	**TCE**	**TRANS-1,2-DCE**	**Vinyl Chloride**
MW-143B	07/18/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-148B	07/18/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-149A	07/18/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-150A	07/18/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-150B	07/18/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-144A	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-144E	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-145A	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-145E	07/19/2011	0.25 U	0.25 U	0.25 U	**0.53 J**	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-5 LL4, AMA, and Landfill Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-104A	08/10/2011	0.13 U	0.10 U	0.10 U	**7.5**	0.10 U	0.10 U
MW-104B	08/10/2011	0.13 U	0.10 U	**0.12 J**	**10.0**	0.10 U	0.10 U
MW-104O	08/10/2011	0.14 U	0.11 U	0.11 U	**0.24 J**	0.11 U	0.11 U
MW-105A	08/10/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-105B	08/10/2011	0.14 UJ	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ
MW-105O	08/10/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-111A	08/10/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-111B	08/10/2011	0.13 U	0.10 U	0.10 U	**0.063 J**	0.10 U	0.10 U
MW-111O	08/10/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-109A	08/10/2011	0.13 U	0.10 U	**0.12 J**	**1.6**	0.10 U	0.10 U
MW-109B	08/10/2011	0.13 U	0.11 UJ	**0.11 J**	**1.5 J**	0.11 UJ	0.11 UJ
MW-109O	08/10/2011	0.13 U	0.10 U	0.10 U	**0.072 J**	0.10 U	0.10 U
MW-151A	07/18/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-151B	07/18/2011	0.13 U	0.10 U	**0.11 J**	0.10 U	0.10 U	0.10 U
MW-153A	07/18/2011	0.13 U	**0.10 J**	**0.094 J**	0.10 U	0.10 U	0.10 U
MW-153B	07/18/2011	0.13 U	0.10 U	**0.055 J**	**0.46**	0.10 U	0.10 U
MW-155A	07/18/2011	0.13 U	**0.052 J**	**0.056 J**	**0.11 J**	0.10 U	0.10 U
MW-155E	07/18/2011	0.13 U	**0.053 J**	**0.050 J**	**0.21 J**	0.10 U	0.10 U
MW-154A	07/18/2011	0.13 U	0.10 U	**0.092 J**	**4.0**	0.10 U	0.10 U
MW-156A	07/19/2011	0.13 U	0.10 U	**0.10 J**	**0.44**	0.10 U	0.10 U
MW-156B	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-157A	07/18/2011	0.13 U	0.10 U	0.10 U	**0.78**	0.10 U	0.10 U
MW-157B	07/18/2011	0.13 U	**0.069 J**	0.10 U	**1.1 J**	**0.042 J**	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-5 LL4, AMA, and Landfill Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
MW-104A	08/24/2011	0.25 U	**0.52 J**	0.25 U	**10.0**	0.25 U	0.25 U
MW-104B	08/24/2011	0.25 U	**0.54 J**	0.25 U	**9.3**	0.25 U	0.25 U
MW-104D	08/24/2011	0.25 U	0.25 U	0.25 U	**1.3**	0.25 U	0.25 U
MW-104O	08/24/2011	0.25 U	**2.2**	0.25 U	**0.34 J**	**0.33 J**	0.25 U
MW-105A	08/24/2011	0.25 U	**0.91 J**	0.25 U	**20.0**	0.25 U	0.25 U
MW-105B	08/24/2011	0.25 U	**1.1**	0.25 U	**22.0**	0.25 U	0.25 U
MW-105O	08/24/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-111A	08/24/2011	0.25 U	0.25 U	0.25 U	**4.1**	0.25 U	0.25 U
MW-111B	08/24/2011	0.25 U	0.25 U	0.25 U	**7.2**	0.25 U	0.25 U
MW-111O	08/24/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-136A	08/23/2011	0.25 U	0.25 U	0.25 U	**16.0**	0.25 U	0.25 U
MW-136B	08/23/2011	0.25 U	**1.2**	0.25 U	**47.0**	0.25 U	0.25 U
MW-136D	08/23/2011	1.1 U	**1.3 J**	1.1 U	**270**	1.1 U	1.1 U
MW-136E	08/23/2011	1.3 U	**4.0 J**	1.3 U	**350**	1.3 U	1.3 U
MW-137A	08/24/2011	0.25 U	0.25 U	0.25 U	**5.6**	0.25 U	0.25 U
MW-137B	08/24/2011	0.25 U	**0.43 J**	0.25 U	**58.0**	0.25 U	0.25 U
MW-137D	08/24/2011	0.25 U	0.25 U	0.25 U	**0.61 J**	0.25 U	0.25 U
MW-137E	08/24/2011	1.7 U	**13.0**	1.7 U	**2900**	1.7 U	1.7 U
MW-138A	08/24/2011	0.25 U	0.25 U	0.25 U	**1.7**	0.25 U	0.25 U
MW-138B	08/24/2011	2.2 U	**19.0**	2.2 U	**4100**	2.2 U	2.2 U
MW-139A	08/24/2011	0.25 U	0.25 U	0.25 U	**0.69 J**	0.25 U	0.25 U
MW-139B	08/24/2011	0.85 U	**2.1 J**	0.85 U	**270**	0.85 U	0.85 U
MW-140A	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-140B	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-140D	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-140O	07/27/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-5 LL4, AMA, and Landfill Interior Plume Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**CIS-1,2-DCE**	**Methylene Chloride**	**TCE**	**TRANS-1,2-DCE**	**Vinyl Chloride**
MW-109A	08/24/2011	0.25 U	0.25 U	0.25 U	**7.0**	0.25 U	0.25 U
MW-109B	08/24/2011	0.25 U	0.25 U	0.25 U	**5.7**	0.25 U	0.25 U
MW-109O	08/24/2011	0.25 U	0.25 U	0.25 U	**0.20 J**	0.25 U	0.25 U
MW-151A	07/18/2011	0.25 U	**1.5**	0.25 U	**59.0**	0.25 U	0.25 U
MW-151B	07/18/2011	0.50 U	**4.2**	0.50 U	**620**	0.50 U	0.50 U
MW-153A	07/18/2011	1.3 U	**4.6 J**	1.3 U	**1000**	1.3 U	1.3 U
MW-153B	07/18/2011	0.50 U	**2.1**	0.50 U	**490**	0.50 U	0.50 U
MW-155A	07/18/2011	0.50 U	**4.0**	0.50 U	**860**	0.50 U	0.50 U
MW-155E	07/18/2011	0.50 U	**2.9**	0.50 U	**630**	0.50 U	0.50 U
MW-154A	07/18/2011	0.25 U	**0.48 J**	0.25 U	**14.0**	0.25 U	0.25 U
MW-156A	07/19/2011	0.25 U	0.25 U	0.25 U	**0.88 J**	0.25 U	0.25 U
MW-156B	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-157A	07/18/2011	0.25 U	0.25 U	0.25 U	**34.0**	0.25 U	0.25 U
MW-157B	07/18/2011	0.25 U	0.25 U	0.25 U	**0.46 J**	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

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Table 2-6 Focused Extraction Monitoring Wells at the FEW-11, FEW-14 and FEW-15 Sites

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-119A	08/22/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-119B	08/22/2011	0.13 U	0.10 U	**0.14 J**	0.10 U	0.10 U	0.10 U
MW-120A	08/22/2011	0.13 U	0.10 U	**0.090 J**	0.10 U	0.10 U	0.10 U
MW-120B	08/22/2011	0.13 U	**0.050 J**	**2.1 J**	**8.1**	0.10 U	0.10 U
MW-120D	08/22/2011	0.13 U	0.11 U	0.11 U	0.11 U	**0.34 J**	**0.14 J**
MW-120E	08/22/2011	0.13 U	0.11 U	**0.46 J**	**5.9**	0.11 U	0.11 U
MW-121A	08/23/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-121B	08/23/2011	0.13 U	0.10 U	**0.18 J**	**0.29 J**	0.10 U	0.10 U
MW-121E	08/23/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-122A	08/22/2011	0.13 U	0.10 U	**0.21 J**	0.10 U	**0.041 J**	**0.069 J**
MW-122B	08/22/2011	0.13 U	0.11 U	**0.38 J**	**0.75**	0.11 U	0.11 U
MW-123A	08/22/2011	0.13 U	0.10 U	**0.060 J**	0.10 U	0.10 U	0.10 U
MW-123B	08/22/2011	0.13 U	0.10 U	**0.49**	**0.81**	0.10 U	0.10 U
MW-128A	07/25/2011	0.13 U	0.10 U	**0.48**	**1.1**	0.10 U	0.10 U
MW-128B	07/25/2011	0.13 U	0.10 U	**0.84**	**2.4**	0.10 U	0.10 U
MW-128D	07/25/2011	0.13 U	0.10 U	0.10 U	**0.21 J**	0.10 U	0.10 U
MW-131A	07/25/2011	0.13 U	0.10 U	**0.56**	**3.5**	0.10 U	0.10 U
MW-131B	07/25/2011	0.13 U	0.10 U	**0.24 J**	**1.4**	0.10 U	0.10 U
MW-131D	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-132A	07/25/2011	0.13 U	0.10 U	**0.57**	**2.4**	0.10 U	0.10 U
MW-132B	07/25/2011	0.13 U	0.10 U	**0.79**	**3.8**	0.10 U	0.10 U
MW-132D	07/25/2011	0.13 U	0.10 U	**0.40 J**	**1.7**	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-6 Focused Extraction Monitoring Wells at the FEW-11, FEW-14 and FEW-15 Sites

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**CIS-1,2-DCE**	**Methylene Chloride**	**TCE**	**TRANS-1,2-DCE**	**Vinyl Chloride**
MW-119A	08/22/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-119B	08/22/2011	0.25 U	0.25 U	0.25 U	**0.49 J**	0.25 U	0.25 U
MW-120A	08/22/2011	0.50 U	**140**	0.50 U	**590**	**0.76 J**	0.50 U
MW-120B	08/22/2011	5.0 U	**14.0 J**	5.0 U	**8600**	5.0 U	5.0 U
MW-120D	08/22/2011	0.50 U	**10.0**	0.50 U	**600**	0.50 U	0.50 U
MW-120E	08/22/2011	10.0 U	**35.0 J**	10.0 U	**15000**	10.0 U	10.0 U
MW-121A	08/23/2011	0.25 U	0.25 U	0.25 U	**0.58 J**	0.25 U	0.25 U
MW-121B	08/23/2011	0.25 U	0.25 U	0.25 U	**0.54 J**	0.25 U	0.25 U
MW-121E	08/23/2011	0.25 U	0.25 U	0.25 U	**0.50 J**	0.25 U	0.25 U
MW-122A	08/22/2011	0.73 U	**1.2 J**	0.73 U	**180**	0.73 U	0.73 U
MW-122B	08/22/2011	0.50 U	**2.5**	0.50 U	**760**	0.50 U	0.50 U
MW-123A	08/22/2011	0.25 U	**0.49 J**	0.25 U	**4.2**	0.25 U	0.25 U
MW-123B	08/22/2011	0.25 U	0.25 U	0.25 U	**6.9**	0.25 U	0.25 U
MW-133A	08/23/2011	0.25 U	0.25 U	0.25 U	**34.0**	0.25 U	0.25 U
MW-133B	08/23/2011	0.25 U	0.25 U	0.25 U	**12.0**	0.25 U	0.25 U
MW-133D	08/23/2011	0.25 U	**0.48 J**	0.25 U	**54.0**	0.25 U	0.25 U
MW-134A	08/23/2011	0.25 U	**1.9**	0.25 U	**43.0**	0.25 U	0.25 U
MW-134B	08/23/2011	0.88 U	**15.0**	0.88 U	**250**	0.88 U	0.88 U
MW-134D	08/23/2011	0.25 U	0.25 U	0.25 U	**23.0 J**	0.25 U	0.25 U
MW-135A	08/23/2011	0.73 U	**2.7 J**	0.73 U	**190**	0.73 U	0.73 U
MW-135B	08/23/2011	0.83 U	**12.0**	0.83 U	**190**	0.83 U	0.83 U
MW-135D	08/23/2011	1.3 U	**3.5 J**	1.3 U	**410**	1.3 U	1.3 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-7 Upgradient, Downgradient, and Sidegradient Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
MW-129A	07/25/2011	0.13 U	0.10 U	**0.057 J**	**0.21 J**	0.10 U	0.10 U
MW-129B	07/25/2011	0.13 U	0.10 U	0.10 U	**0.29 J**	0.10 U	0.10 U
MW-129D	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-94A	08/11/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-94B	08/11/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	**0.19 J**
MW-94D	08/11/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-129A	07/25/2011	0.13 U	0.10 U	**0.057 J**	**0.21 J**	0.10 U	0.10 U
MW-129B	07/25/2011	0.13 U	0.10 U	0.10 U	**0.29 J**	0.10 U	0.10 U
MW-129D	07/25/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-146A	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
MW-146B	07/19/2011	0.13 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 2-7 Upgradient, Downgradient, and Sidegradient Monitoring Wells

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**CIS-1,2-DCE**	**Methylene Chloride**	**TCE**	**TRANS-1,2-DCE**	**Vinyl Chloride**
MW-146A	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-146B	07/19/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-79A	08/11/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-79B	08/11/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-91A	08/11/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-91B	08/11/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
MW-91D	08/11/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
UNFL-09A	07/22/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
UNFL-10A	07/22/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-100	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-101	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-102	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-103	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-104	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-105	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-106	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-107	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-108	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-109	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-110	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-111	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-112	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-113	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-114	07/25/2011	0.060 U	0.048 U	0.048 U	**0.22 J**	**0.11 J**	**0.12 J**
WSW-115	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-117	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-27	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-29	07/14/2011	0.060 U	0.048 U	0.048 U	**0.13 J**	0.048 U	0.048 U
WSW-29A	07/14/2011	0.060 U	0.048 U	0.048 U	**0.16 J**	0.048 U	0.048 U
WSW-32	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-34	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-36	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-50A	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
WSW-50B	07/14/2011	0.060 U	0.048 U	0.048 U	**1.3**	**0.021 J**	0.048 U
WSW-51	07/14/2011	0.060 U	0.048 U	0.048 U	**0.13 J**	0.048 U	0.048 U
WSW-51A	07/14/2011	0.060 U	0.048 U	0.048 U	**0.98**	0.048 U	0.048 U
WSW-52A	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-52A-B	07/18/2011	0.060 U	0.048 U	0.048 U	**0.24**	0.048 U	0.048 U
WSW-52B	07/14/2011	0.060 U	0.048 U	0.048 U	**0.025 J**	0.048 U	**0.021 J**
WSW-52C	09/22/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-52C-B	09/22/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-53	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-53-B	07/15/2011	0.060 U	0.048 U	**0.25**	**8.8**	0.048 U	0.048 U
WSW-54	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-54-B	07/18/2011	0.060 U	**0.068 J**	**0.22**	**3.2**	0.048 U	0.048 U
WSW-55	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-56	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-57	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-58	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-59	07/18/2011	0.060 U	0.048 U	0.048 U	**0.036 J**	0.048 U	0.048 U
WSW-60	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-61	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-62	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-63	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-64	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-65	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-66	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-67	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-68	07/14/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-73	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
WSW-74	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-75	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-76	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-77	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-79	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-80	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-81	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-82	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-86	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-87	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-89	07/21/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-90	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-91	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-92	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-93	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-94	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-95	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-96	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-97	07/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
WSW-99	07/18/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
UNFL-09A	07/22/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
UNFL-10A	07/22/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-100	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-101	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-102	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-103	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-104	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-105	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-106	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-107	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-108	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-109	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-110	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-111	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-112	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-113	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-114	07/25/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-115	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-117	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-27	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-29	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-29A	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-32	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-34	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-36	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-50A	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
WSW-50B	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-51	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-51A	07/14/2011	0.45 U	0.37 U	0.36 U	**1.7**	0.24 U	0.33 U
WSW-52A	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-52A-B	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-52B	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-52C	09/22/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-52C-B	09/22/2011	0.45 U	**2.4**	0.36 U	**140**	0.24 U	0.33 U
WSW-53	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-53-B	07/15/2011	0.45 U	**1.2**	0.36 U	**5.0**	0.24 U	0.33 U
WSW-54	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-54-B	07/18/2011	0.45 U	0.37 U	0.36 U	**8.8**	0.24 U	0.33 U
WSW-55	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-56	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-57	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-58	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-59	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-60	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-61	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-62	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-63	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-64	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-65	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-66	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-67	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-68	07/14/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 3-1 Water Supply Well

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
WSW-73	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-74	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-75	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-76	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-77	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-79	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-80	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-81	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-82	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-86	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-87	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-89	07/21/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-90	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-91	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-92	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-93	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	**2.0**
WSW-94	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-95	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-96	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-97	07/15/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U
WSW-99	07/18/2011	0.45 U	0.37 U	0.36 U	0.37 U	0.24 U	0.33 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 4-1 Surface Water

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
ARTESIAN	07/13/2011	0.060 U	0.048 U	**0.051 J**	**2.2**	0.048 U	0.048 U
SCW-04	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SCW-05	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SCW-06	07/13/2011	0.060 U	0.048 U	0.024 U	0.048 U	0.048 U	0.048 U
SW-05	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SW-06	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SW-08	07/13/2011	0.060 U	0.048 U	0.048 U	**0.24**	0.048 U	0.048 U
SW-09	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SW-10	07/13/2011	0.060 U	0.048 U	**0.026 J**	**0.77**	0.048 U	0.048 U
SW-11	07/13/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
SW-12	07/13/2011	0.060 U	0.048 U	**0.026 J**	**0.48**	0.048 U	0.048 U
SW-13	07/13/2011	0.060 U	0.048 U	0.048 U	**0.21**	0.048 U	0.048 U

Detects are displayed in bold font

Table 4-1 Surface Water

Results for Third Quarter 2011 Sampling Event

Groundwater Monitoring Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	**1,2-DCP**	**Methylene Chloride**	**TRANS-1,2-DCE**	**Vinyl Chloride**	**CIS-1,2-DCE**	**TCE**
ARTESIAN	07/13/2011	0.50 U	0.50 U	0.50 U	0.50 U	**0.61 J**	**140**
SCW-04	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SCW-05	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SCW-06	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SW-05	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SW-06	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SW-08	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**0.32 J**
SW-09	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SW-10	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	**0.24 J**	**8.3**
SW-11	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
SW-12	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**4.5**
SW-13	07/13/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	**2.3**

Detects are displayed in bold font

Table 5-1 Operations and Maintenance

Results for Third Quarter 2011 Sampling Event

Operations and Maintenance Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
AOP-EFF	07/05/2011	0.060 U	0.048 U	0.048 U	**2.6**	**0.035 J**	**0.12 J**
AOP-EFF	07/28/2011	0.060 U	0.048 U	0.048 U	**2.8**	**0.044 J**	**0.097 J**
AOP-EFF	09/01/2011	0.060 U	0.048 U	0.048 U	**3.2**	**0.037 J**	**0.11 J**
AOP-INF	07/05/2011	0.060 U	**0.038 J**	**0.91 J**	**3.2**	**0.028 J**	**0.11 J**
AOP-INF	09/01/2011	0.060 U	**0.049 J**	**0.95 J**	**3.8**	0.048 U	0.048 U
EW-03	07/27/2011	0.060 U	0.048 U	**0.060 J**	**1.2**	0.048 U	0.048 U
EW-04	07/27/2011	0.060 U	0.048 U	**0.53**	**4.1**	0.048 U	0.048 U
EW-06	07/27/2011	0.060 U	0.048 U	**0.24**	**1.2**	0.048 U	0.048 U
EW-07	07/27/2011	0.060 U	0.048 U	**0.042 J**	**6.5**	0.048 U	0.048 U
EW-09	07/27/2011	0.060 U	0.048 U	**0.12 J**	**21.0**	0.048 U	**0.032 J**
EW-11	07/27/2011	0.060 U	**0.028 J**	**0.89**	**3.6**	0.048 U	0.048 U
EW-14	07/27/2011	0.060 U	**0.049 J**	**0.68**	**5.8**	0.048 U	0.048 U
GTP-310	07/28/2011	0.060 U	0.048 U	0.048 U	**0.032 J**	0.048 U	0.048 U
GTP-310	09/01/2011	0.060 U	0.048 U	0.048 U	**0.10 J**	0.048 U	0.048 U
GTP-320	07/05/2011	0.060 U	0.048 U	0.048 U	**1.3**	0.048 U	0.048 U
GTP-330	07/28/2011	0.060 U	0.048 U	0.048 U	**0.037 J**	0.048 U	0.048 U
GTP-330	09/01/2011	0.060 U	0.048 U	0.048 U	**0.085 J**	0.048 U	0.048 U
GTP-340	07/05/2011	0.060 U	0.048 U	0.048 U	**1.4**	0.048 U	0.048 U
GTP-350	08/03/2011	0.060 U	0.048 U	0.048 U	**0.031 J**	0.048 U	0.048 U
GTP-350	09/01/2011	0.060 U	0.048 U	0.048 U	**0.16 J**	0.048 U	0.048 U
GTP-360	07/05/2011	0.060 U	0.048 U	0.048 U	**1.4**	0.048 U	0.048 U
GTP-380	07/05/2011	0.060 U	0.048 U	0.048 U	**0.41**	0.048 U	0.048 U
GTP-380	07/28/2011	0.060 U	0.048 U	0.048 U	**0.67**	0.048 U	0.048 U
GTP-EFF	06/27/2011	0.060 U	0.048 U	0.048 U	**0.87**	0.048 U	0.048 U
GTP-EFF	07/28/2011	0.060 U	0.048 U	0.048 U	**0.037 J**	0.048 U	0.048 U
GTP-EFF	09/01/2011	0.060 U	0.048 U	0.048 U	**0.11 J**	0.048 U	0.048 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 5-1 Operations and Maintenance

Results for Third Quarter 2011 Sampling Event

Operations and Maintenance Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Explosives

	Sampling Date	2,4-DNT	2A-DNT	4A-DNT	RDX	TNB	TNT
GTP-INF	06/27/2011	0.060 U	0.048 U	**0.19 J**	**2.4**	0.048 U	0.048 U
GTP-INF	07/28/2011	0.060 U	0.048 U	**0.14 J**	**3.9**	0.048 U	0.048 U
GTP-INF	09/01/2011	0.060 U	0.048 U	**0.15 J**	**4.5**	0.048 U	0.048 U
LL1-EFF	07/28/2011	0.060 U	0.048 U	0.048 U	**0.038 J**	0.048 U	0.048 U
LL1-INF	07/28/2011	0.060 U	0.048 U	0.048 U	**0.042 J**	0.048 U	0.048 U
LL4-EFF	08/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
LL4-INF	08/15/2011	0.060 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 5-1 Operations and Maintenance

Results for Third Quarter 2011 Sampling Event

Operations and Maintenance Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
AOP-EFF	07/05/2011	0.25 U	0.25 U	0.25 U	**0.67 J**	0.25 U	0.25 U
AOP-EFF	07/28/2011	0.25 U	0.25 U	0.25 U	1.3 U	0.25 U	0.25 U
AOP-EFF	09/01/2011	0.25 U	0.25 U	0.25 U	**0.75 J**	0.25 U	0.25 U
AOP-INF	07/05/2011	1.3 U	**4.8 J**	1.3 U	**1800**	1.3 U	1.3 U
AOP-INF	09/01/2011	1.3 U	**5.1**	1.3 U	**2000**	1.3 U	1.3 U
EW-01	07/27/2011	0.25 U	0.25 U	0.25 U	**4.8**	0.33 U	0.25 U
EW-11	07/27/2011	1.1 U	**5.6 J**	1.1 U	**1900**	1.1 U	1.1 U
GCW1-EFF	09/01/2011	0.25 U	0.25 U	0.25 U	**0.63 J**	0.25 U	0.25 U
GCW1-INF	09/01/2011	0.50 U	**3.7**	0.50 U	**600**	0.50 U	0.50 U
GTP-310	07/28/2011	0.25 U	0.25 U	0.25 U	0.47 U	0.25 U	0.25 U
GTP-310	09/01/2011	0.25 U	0.25 U	0.25 U	**0.20 J**	0.25 U	0.25 U
GTP-320	07/05/2011	0.25 U	**0.31 J**	0.25 U	**37.0**	0.25 U	0.25 U
GTP-330	07/28/2011	0.25 U	0.25 U	0.25 U	0.29 U	0.25 U	0.25 U
GTP-330	09/01/2011	0.25 U	0.25 U	0.25 U	**0.21 J**	0.25 U	0.25 U
GTP-340	07/05/2011	0.25 U	**0.32 J**	0.25 U	**47.0**	0.25 U	0.25 U
GTP-350	08/03/2011	0.25 U	0.25 U	0.25 U	0.32 U	0.25 U	0.25 U
GTP-350	09/01/2011	0.25 U	0.25 U	0.25 U	**0.25 J**	0.25 U	0.25 U
GTP-360	07/05/2011	0.25 U	**0.30 J**	0.25 U	**40.0**	0.25 U	0.25 U
GTP-380	07/05/2011	0.25 U	0.25 U	0.25 U	**12.0**	0.25 U	0.25 U
GTP-380	07/28/2011	0.25 U	0.25 U	0.25 U	**5.3**	0.25 U	0.25 U
GTP-EFF	06/27/2011	0.25 U	0.25 U	0.25 U	**2.8**	0.25 U	0.25 U
GTP-EFF	08/03/2011	0.25 U	0.25 U	0.25 U	0.27 U	0.25 U	0.25 U
GTP-EFF	09/01/2011	0.25 U	0.25 U	0.25 U	**0.21 J**	0.25 U	0.25 U
GTP-INF	06/27/2011	0.25 U	0.25 U	0.25 U	**0.58 J**	0.25 U	0.25 U
GTP-INF	07/28/2011	0.25 U	0.25 U	0.25 U	**3.6**	0.53 U	0.31 U
GTP-INF	09/01/2011	0.25 U	0.25 U	0.25 U	**0.90 J**	0.25 U	0.25 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 5-1 Operations and Maintenance

Results for Third Quarter 2011 Sampling Event

Operations and Maintenance Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Volatile Organic Compounds							
	Sampling Date	1,2-DCP	CIS-1,2-DCE	Methylene Chloride	TCE	TRANS-1,2-DCE	Vinyl Chloride
LL1_AIR_EF (Air)	07/28/2011	-	-	-	**15.0**	-	-
LL1-EFF	07/05/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
LL1-EFF	07/28/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
LL1-EFF	09/01/2011	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
LL1-INF	07/05/2011	0.25 U	0.25 U	0.25 U	**60.0**	0.25 U	0.25 U
LL1-INF	07/28/2011	0.25 U	0.25 U	0.25 U	**65.0**	0.25 U	0.25 U
LL1-INF	09/01/2011	0.25 U	0.25 U	0.25 U	**67.0**	0.25 U	0.25 U
LL4_AIR_EF (Air)	09/01/2011	-	-	-	**670**	-	-
LL4-EFF	07/05/2011	0.25 U	0.25 U	0.25 U	**0.89 J**	0.25 U	0.25 U
LL4-EFF	08/15/2011	0.25 U	0.25 U	0.25 U	**0.89 J**	0.25 U	0.25 U
LL4-EFF	09/01/2011	0.25 U	0.25 U	0.25 U	**0.73 J**	0.25 U	0.25 U
LL4-INF	07/05/2011	0.50 U	**2.7**	0.50 U	**530**	0.50 U	0.50 U
LL4-INF	08/15/2011	0.50 U	**2.8**	0.50 U	**570**	0.50 U	0.50 U
LL4-INF	09/01/2011	0.50 U	**2.7**	0.50 U	**520**	0.50 U	0.50 U

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

Table 5-1 Operations and Maintenance

Results for Third Quarter 2011 Sampling Event

Operations and Maintenance Program

Former Nebraska Ordnance Plant, Mead, Nebraska

Wet Chemistry

	Sampling Date	Total Organic Carbon
EW-11	07/27/2011	**1.0**
GTP-INF	07/28/2011	**1.0**
LL1-INF	07/28/2011	**1.1**
LL4-INF	08/15/2011	**0.98 J**

Detects are displayed in bold font

Indicates that result exceeds Final Target Groundwater Cleanup Goals

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FIGURES

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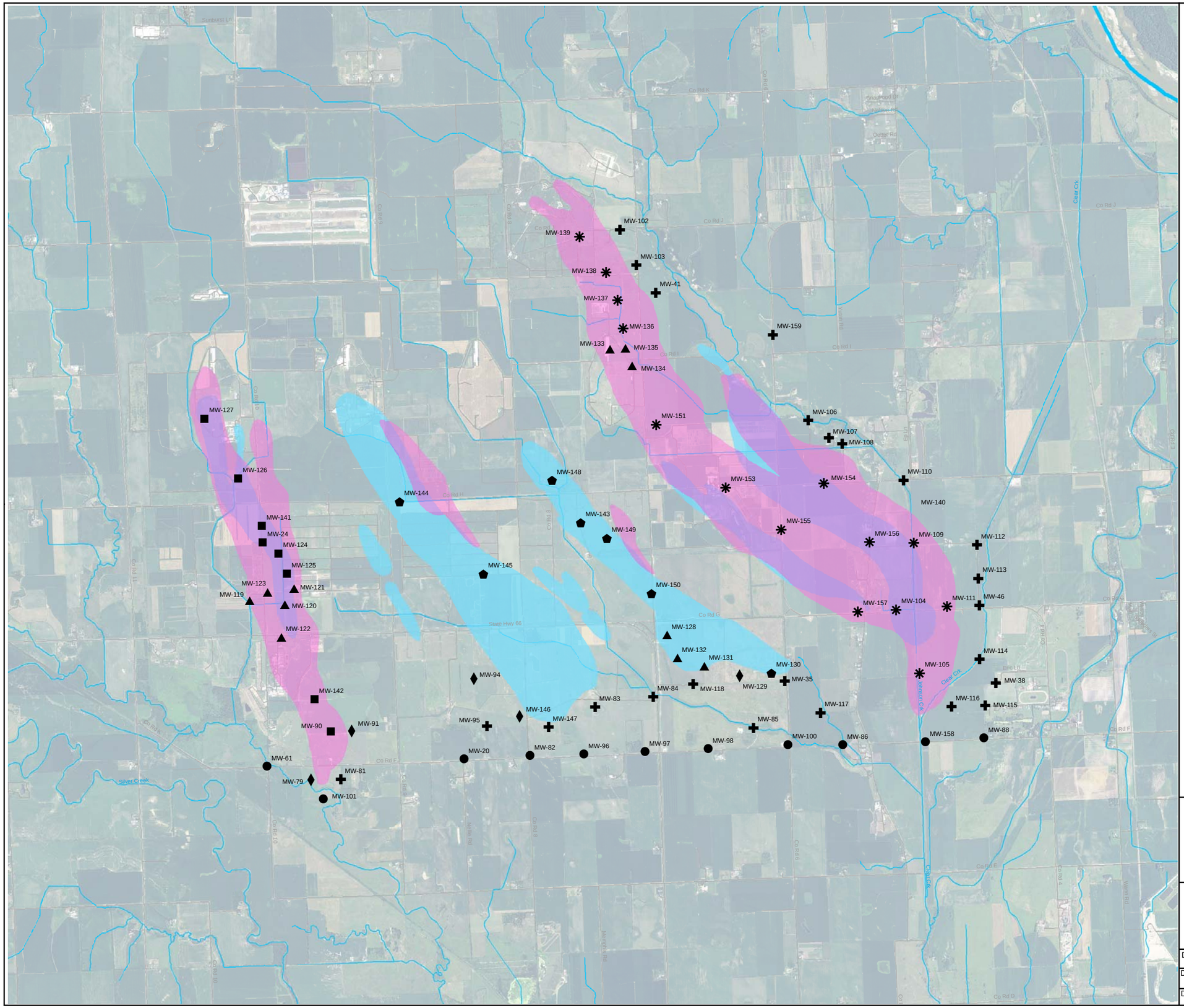

EXPLANATION

- ● Compliance Well
- ■ Load Line 1 Interior Plume Monitoring Well
- ⬟ Load Line 2 and Load Line 3 Interior Plume Monitoring Well
- ✱ Load Line 4, Atlas Missile Area, and Landfill Interior Plume Monitoring Well
- ▲ Focused Extraction Monitoring Well
- ✚ Perimeter Monitoring Well
- ♦ Upgradient/Sidegradient/Downgradient Monitoring Well
- Approximate Area of TCE at a concentration of 5 ug/L or greater (2010)
- Approximate Area of RDX at a concentration of 2 ug/L or greater (2010)
- Approximate Area of both TCE at a concentration of 5 ug/L or greater and RDX at a concentration of 2 ug/L or greater (2010)

NOTE:

TCE and RDX plume delineations are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 1,500 3,000 6,000 9,000 12,000 Feet

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Kansas City District

Figure 2-1
Monitoring Well
3rd Quarter 2011 Sampling Locations

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	October 13, 2011		
Dwg No:	Rev 1 11/4/2011 MGH		

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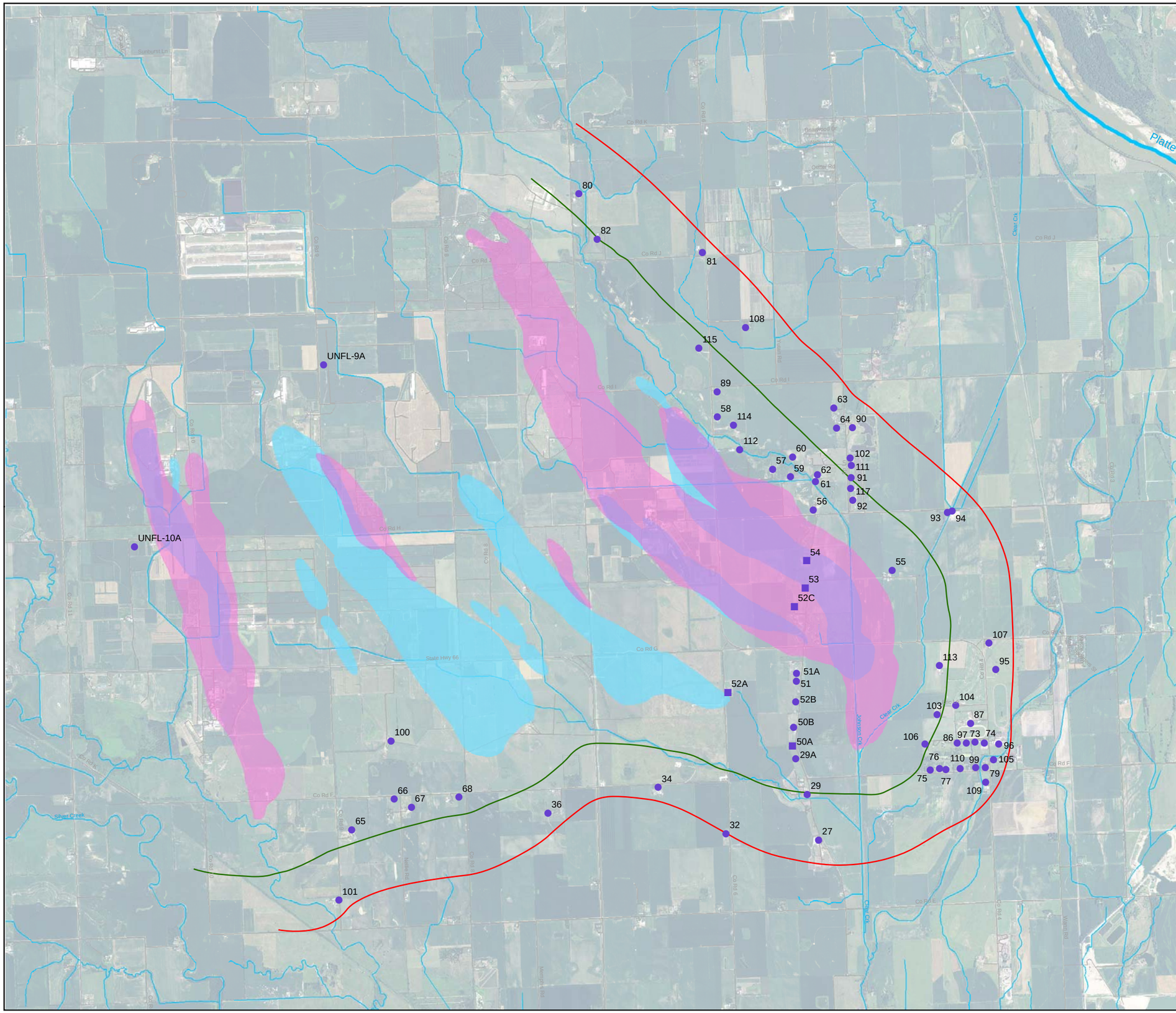

EXPLANATION

- Water Supply Well
- Alternate Water Supply Well
- Half-Mile Buffer Zone
- One-Mile Buffer Zone
- Approximate Area of TCE at a concentration of 5 ug/L or greater (2010)
- Approximate Area of RDX at a concentration of 2 ug/L or greater (2010)
- Approximate Area of both TCE at a concentration of 5 ug/L or greater and RDX at a concentration of 2 ug/L or greater (2010)

NOTE:

TCE and RDX plume delineations are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 1,500 3,000 6,000 9,000 12,000 Feet

US Army Corps of Engineers
Kansas City District

Figure 3-1
Water Supply Well
3rd Quarter 2011 Sampling Locations

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	October 13, 2011		
Dwg No:	Rev 1 11/4/2011 MGJ		

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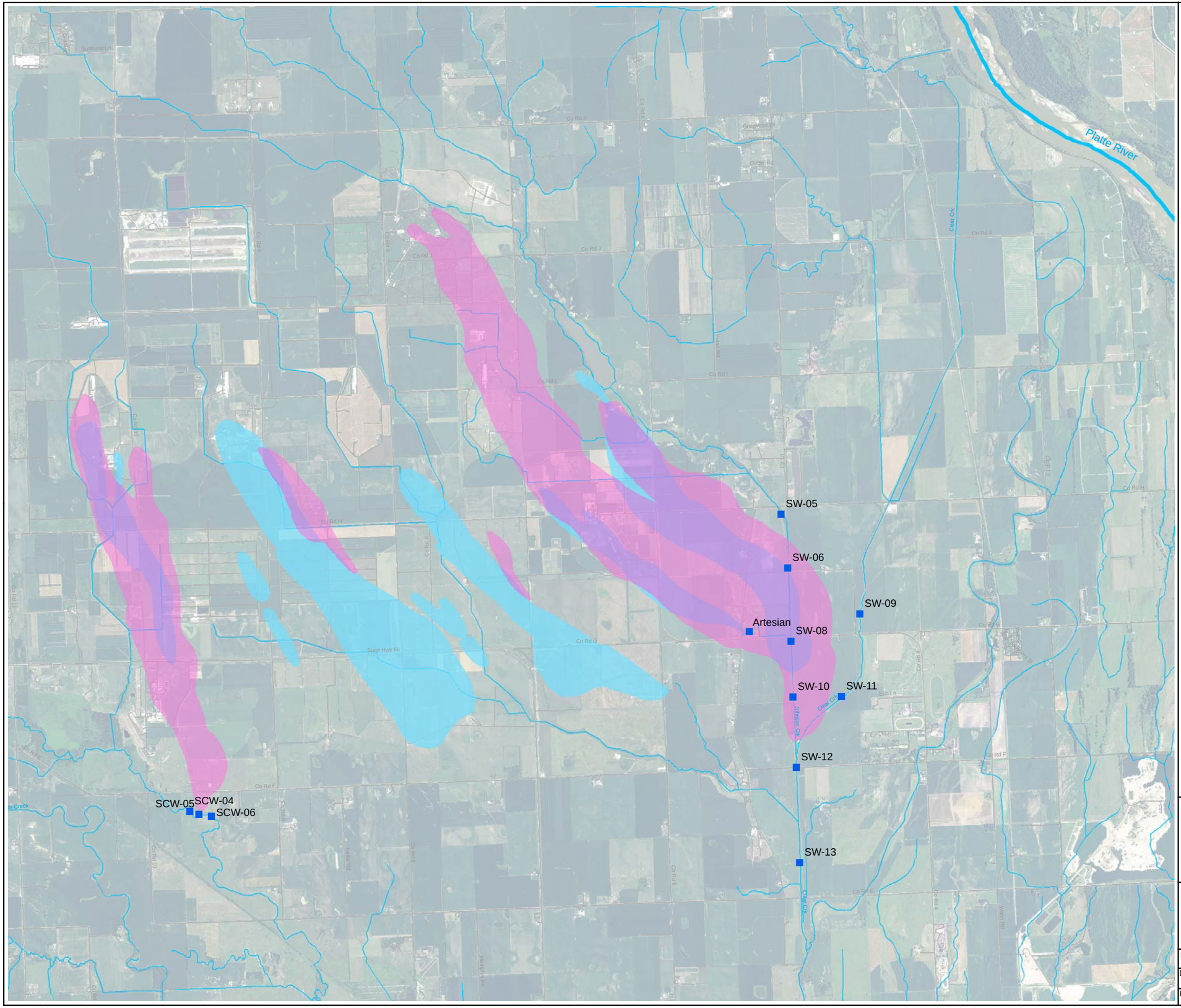

EXPLANATION

- Surface Water Sample Location
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2010)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2010)
- Approximate Area of Both TCE at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2010)

NOTE:

TCE and RDX plume delineations are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

TCE - trichloroethene

RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine

ug/L - micrograms per liter

N

0 1,500 3,000 6,000 9,000 12,000 Feet

US Army Corps of Engineers ®
Kansas City District

Figure 4-1
Surface Water
3rd Quarter 2011 Sampling Locations

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	October 13, 2011		
Dwg No:	Rev 0		

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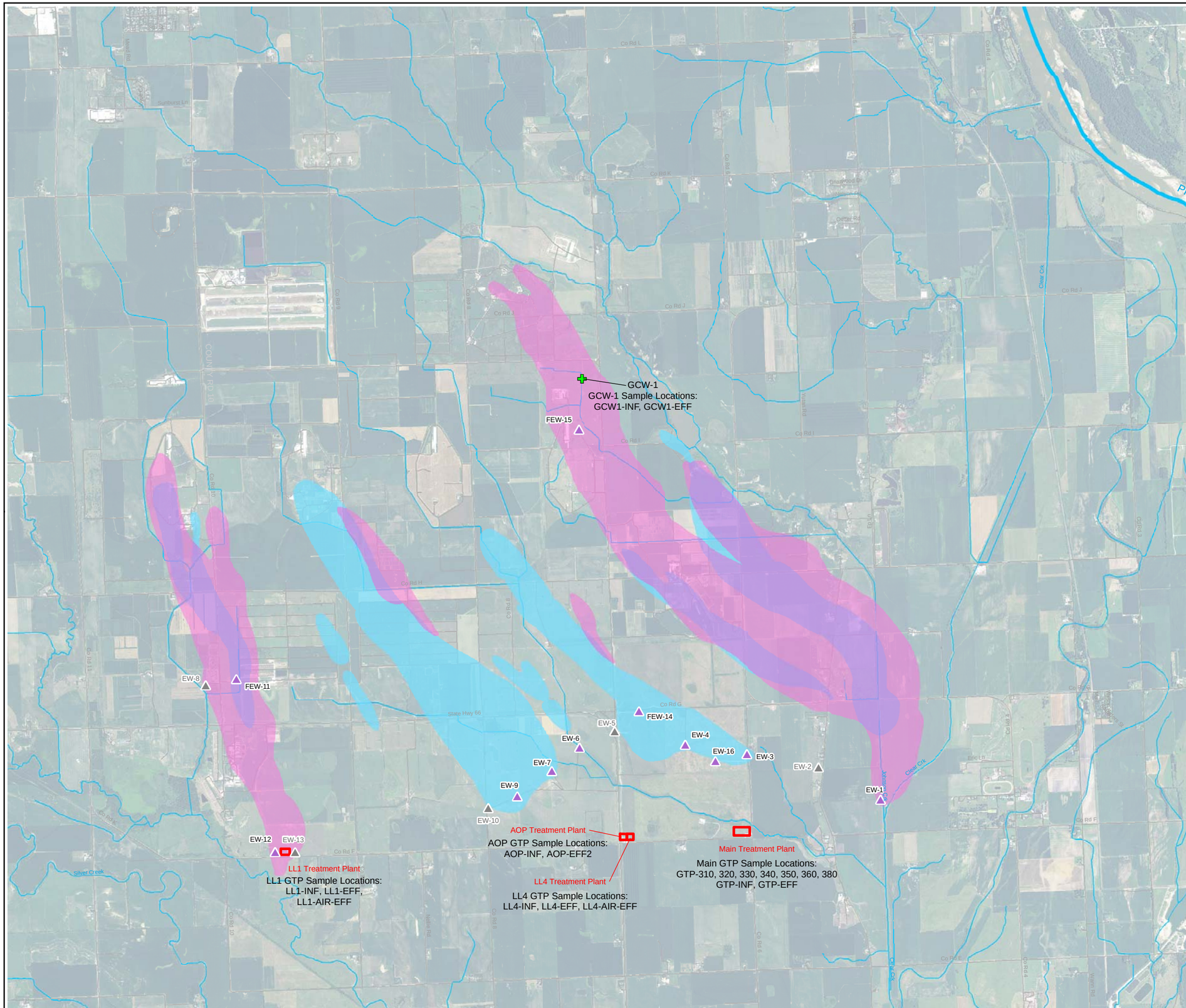

EXPLANATION

- Groundwater Circulation Well
- Active Groundwater Extraction Well (Sampled)
- Inactive Groundwater Extraction Well (Not Sampled)
- Water Treatment Plant
- Approximate Area of TCE at a concentration of 5 ug/L or greater (2010)
- Approximate Area of RDX at a concentration of 2 ug/L or greater (2010)
- Approximate Area of both TCE at a concentration of 5 ug/L or greater and RDX at a concentration of 2 ug/L or greater (2010)

NOTES:

TCE and RDX plume delineations are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

AOP - Advanced Oxidation Process
EFF - Effluent
EW - Extraction Well
FEW - Focused Extraction Well
GCW - Groundwater Circulation Well
GTP - Groundwater Treatment Plant
INF - Influent
LL1 - Load Line 1
LL4 - Load Line 4
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
TCE - trichloroethene
ug/L - micrograms per liter

N

0 1,500 3,000 6,000 9,000 12,000 Feet

US Army Corps of Engineers ®
Kansas City District

Figure 5-1
Operations and Maintenance
3rd Quarter 2011 Sampling Locations

Drawn By:	M Johanson	Sheet No:	Notes and Sources Projection: North American Datum 1983 Nebraska State Plane Units: Feet
Date:	October 13, 2011		
Dwg No:	Rev 1 11/4/2011 MGJ		

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Appendix A
Concentration Trend Charts for Select Monitoring Wells

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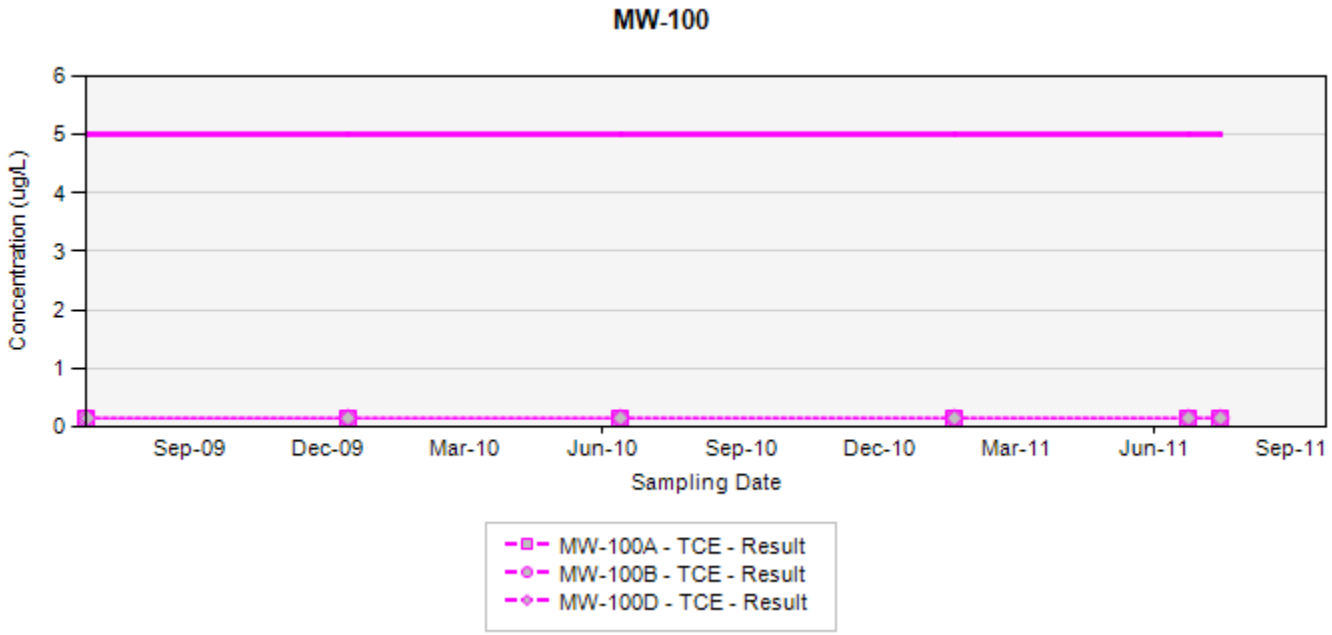
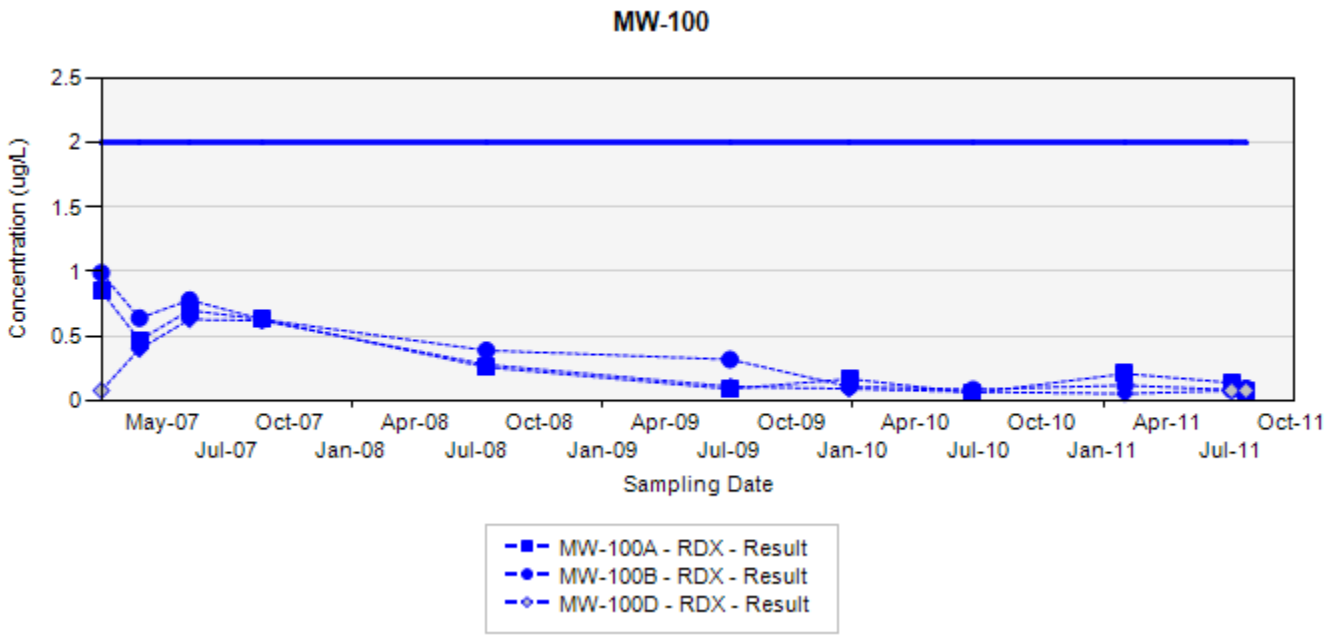
Former Nebraska Ordnance Plant, Mead, Nebraska





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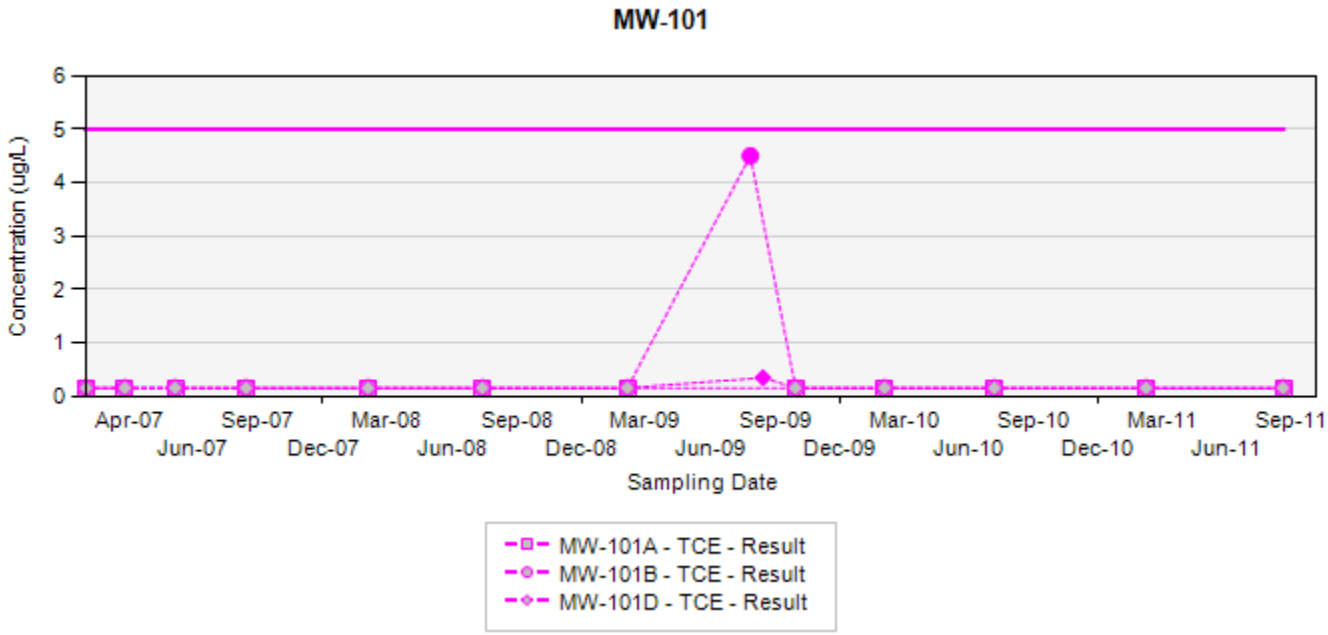

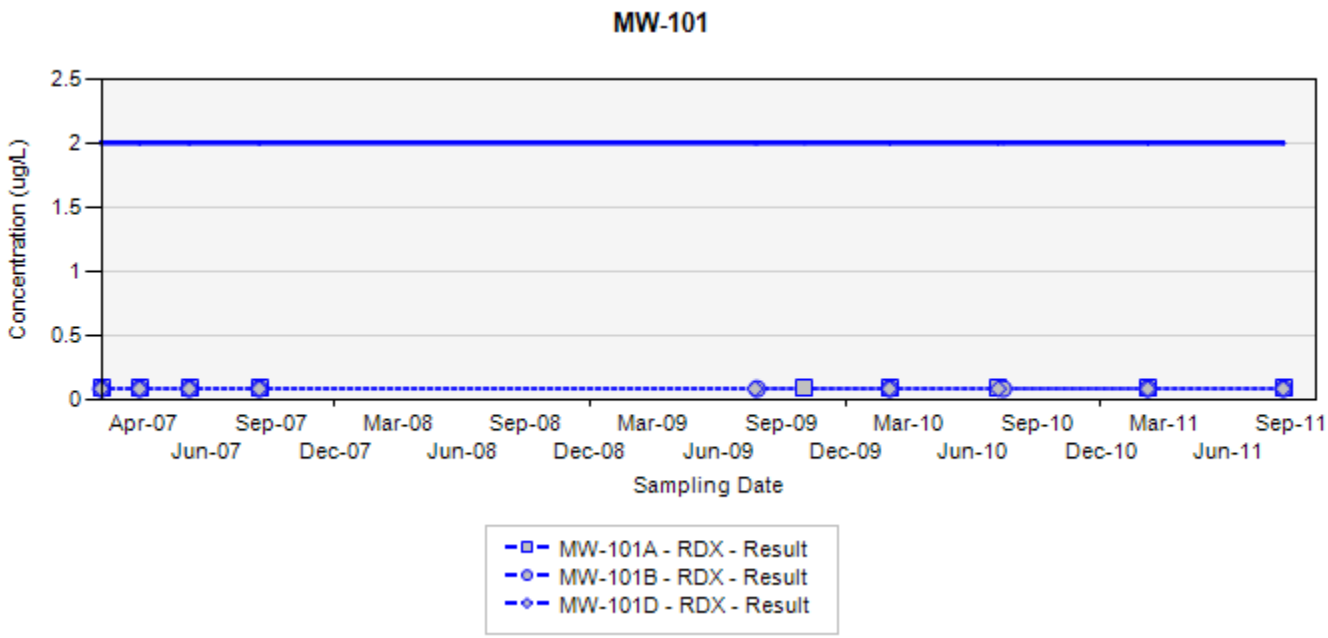

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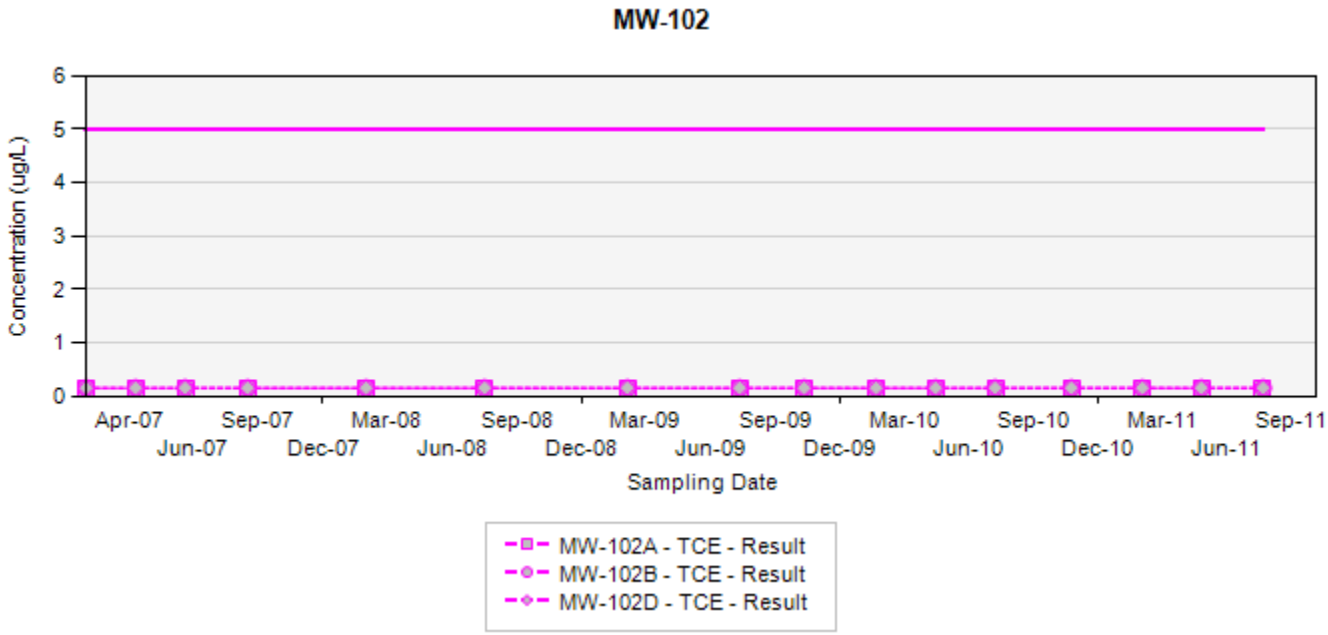

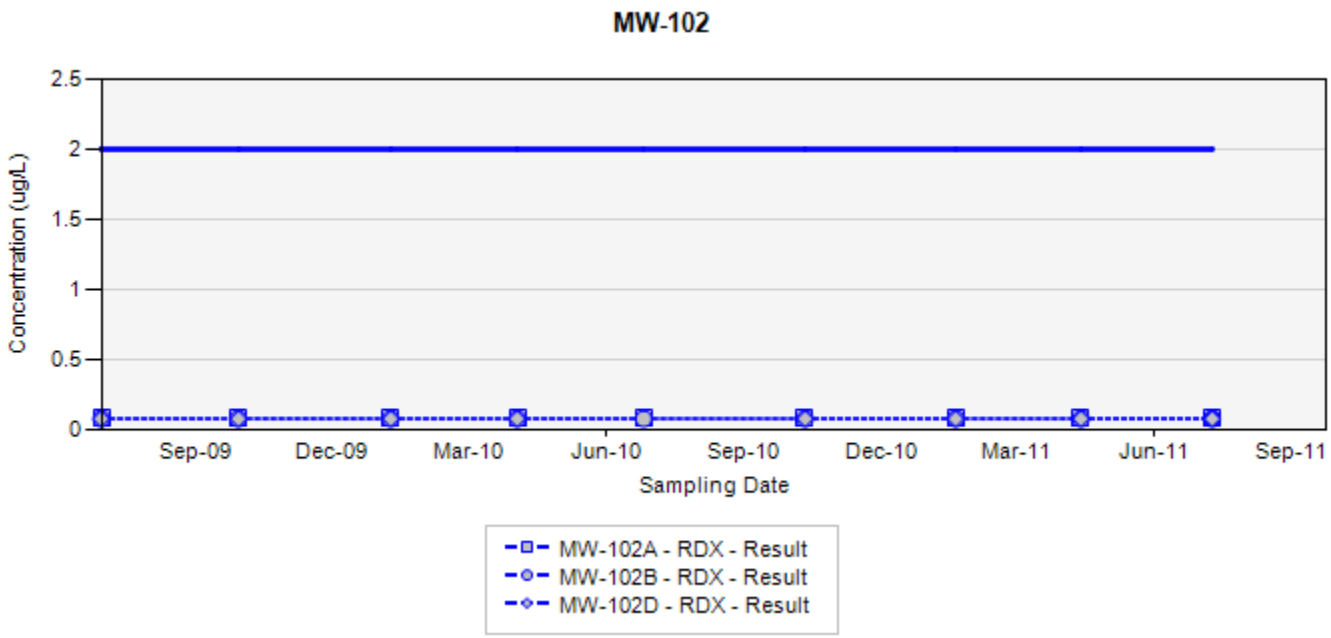

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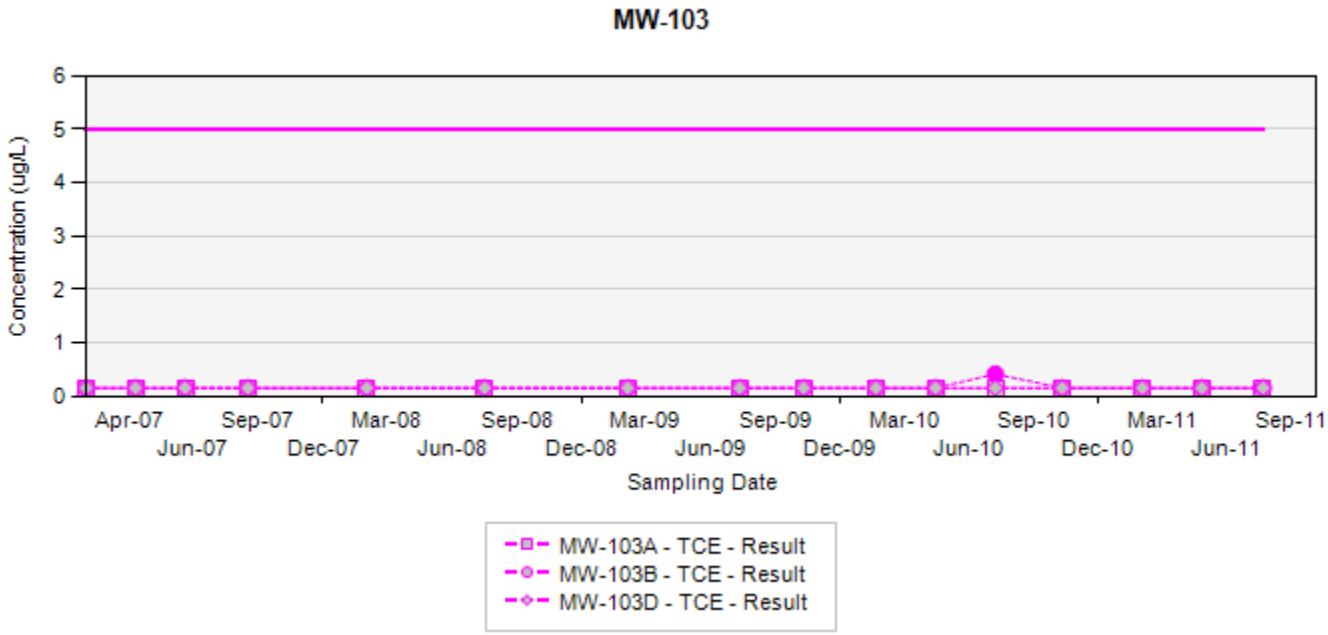

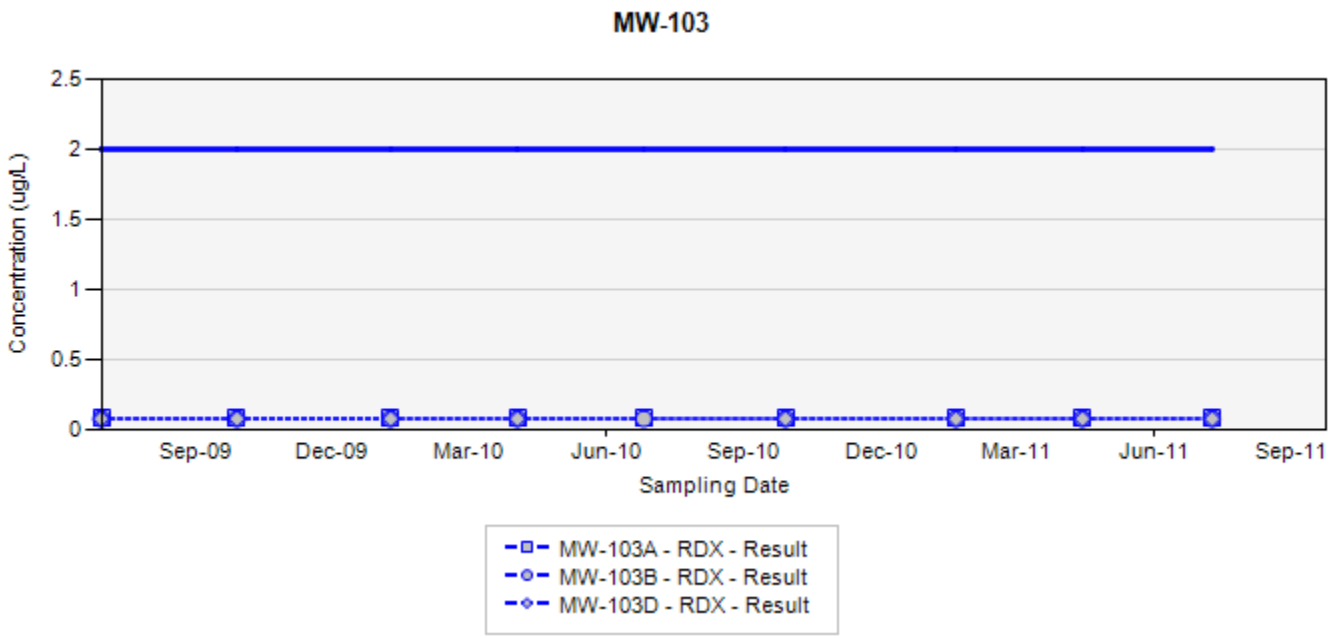

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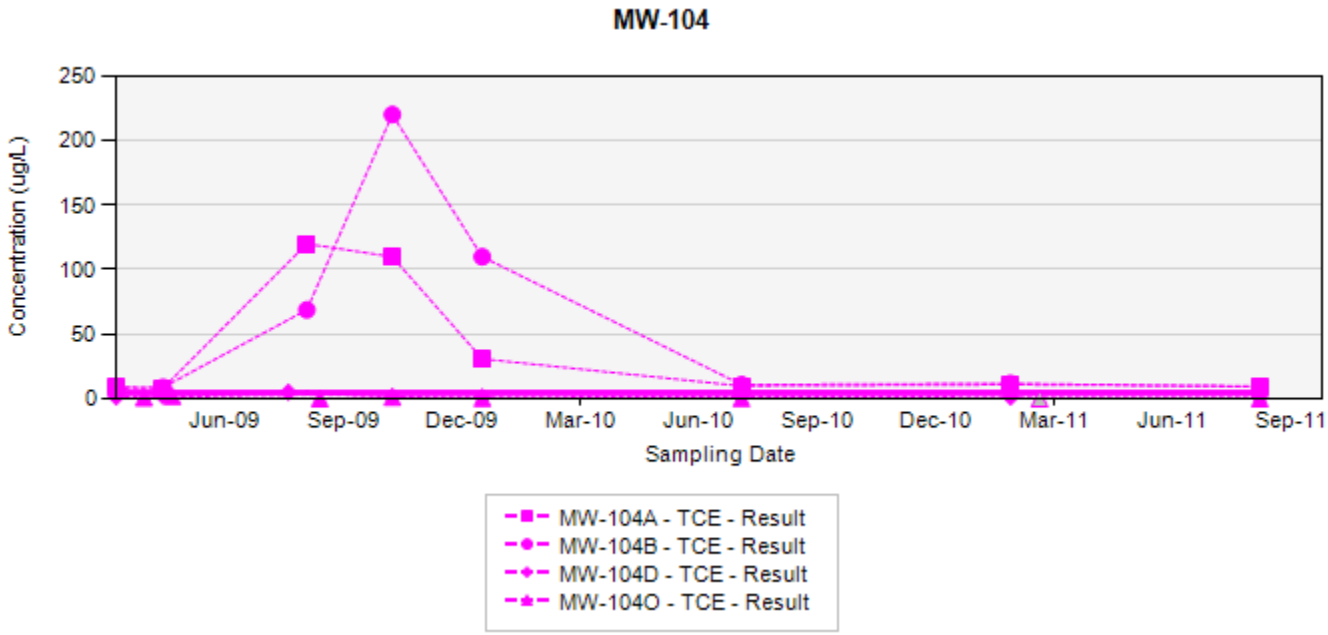

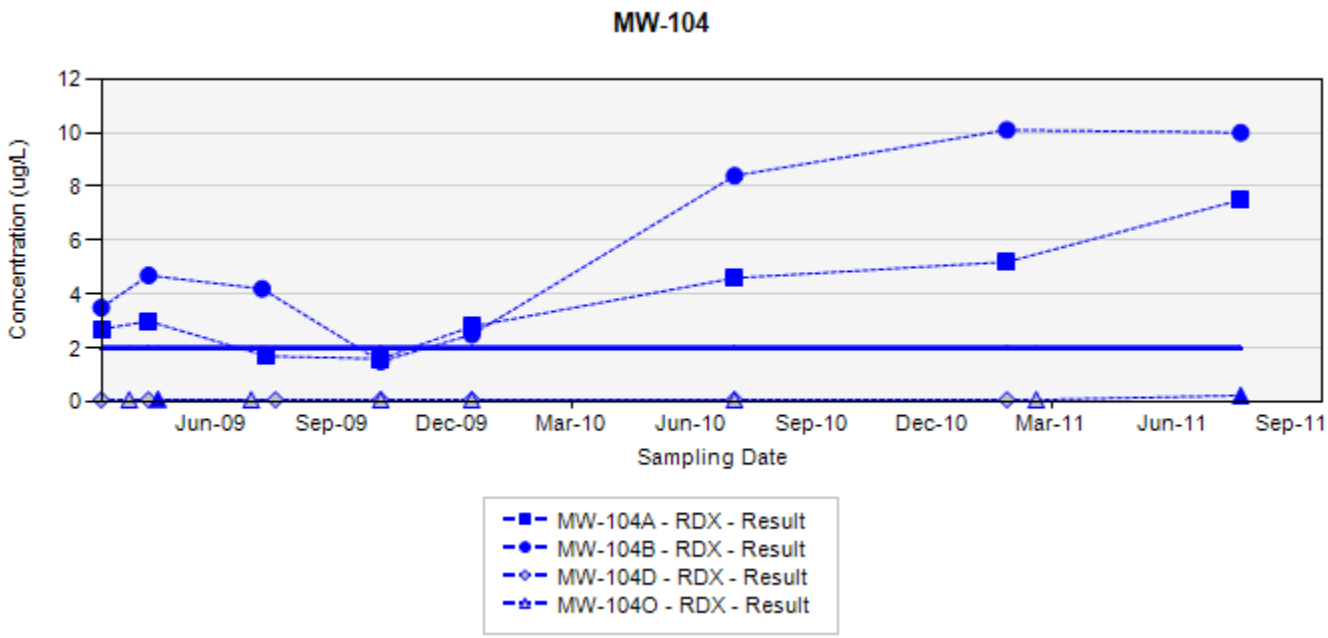

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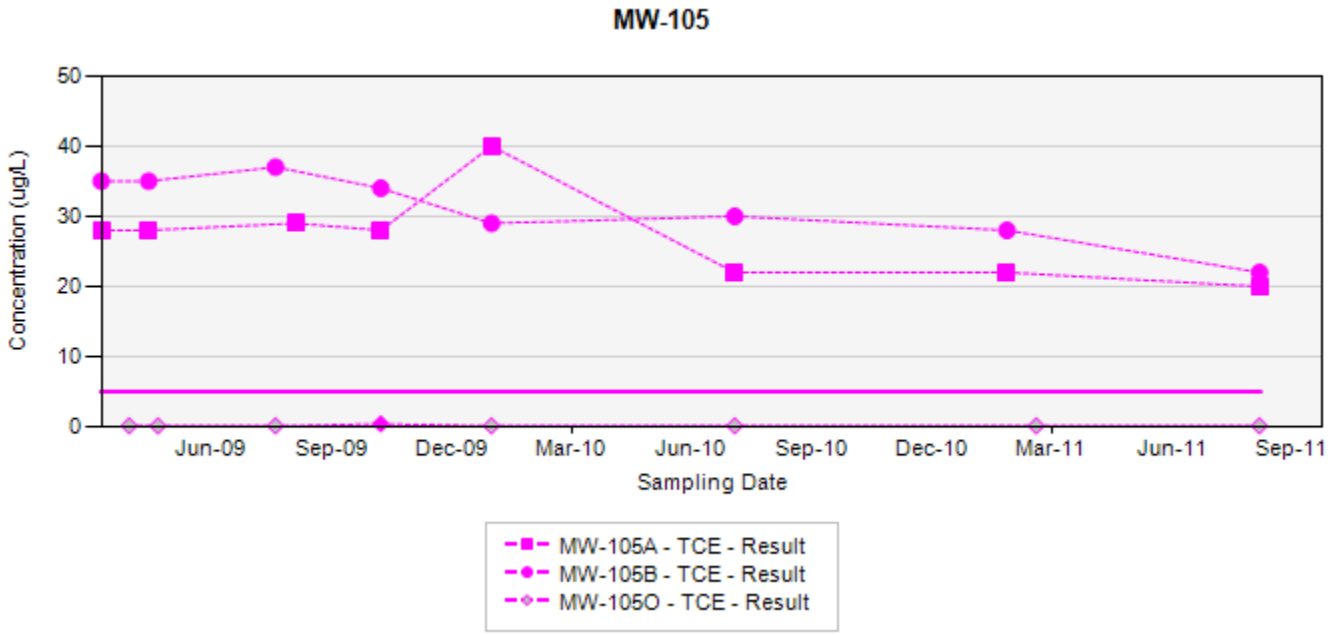

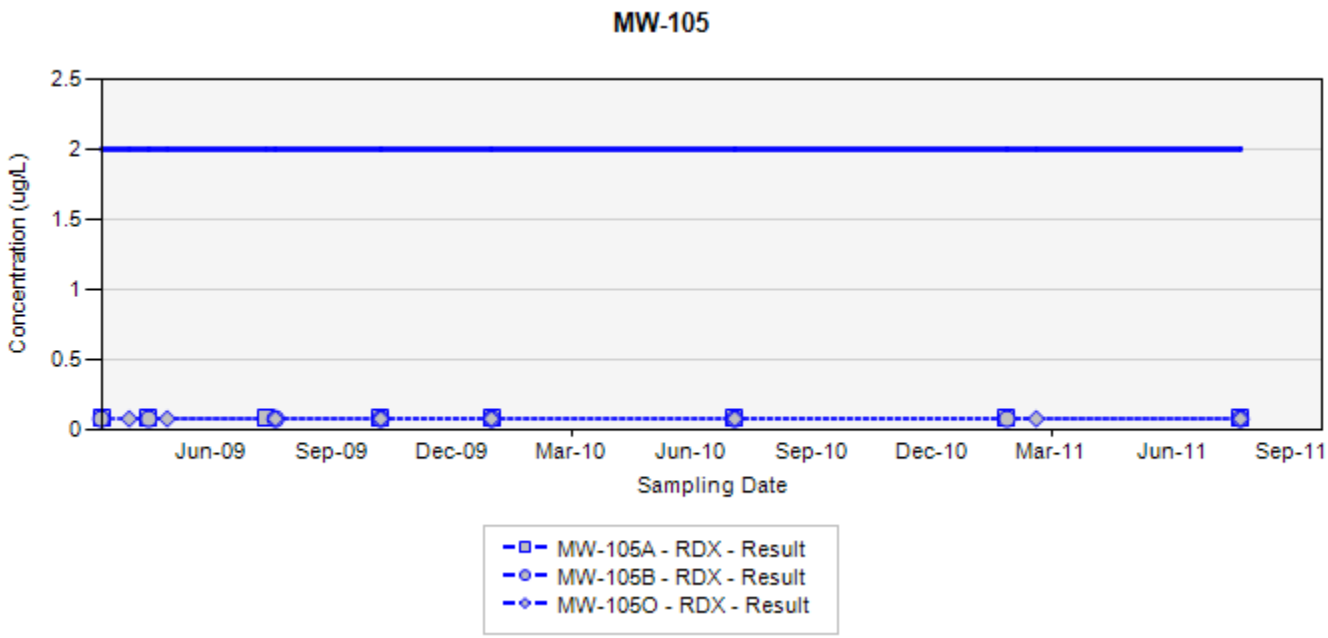

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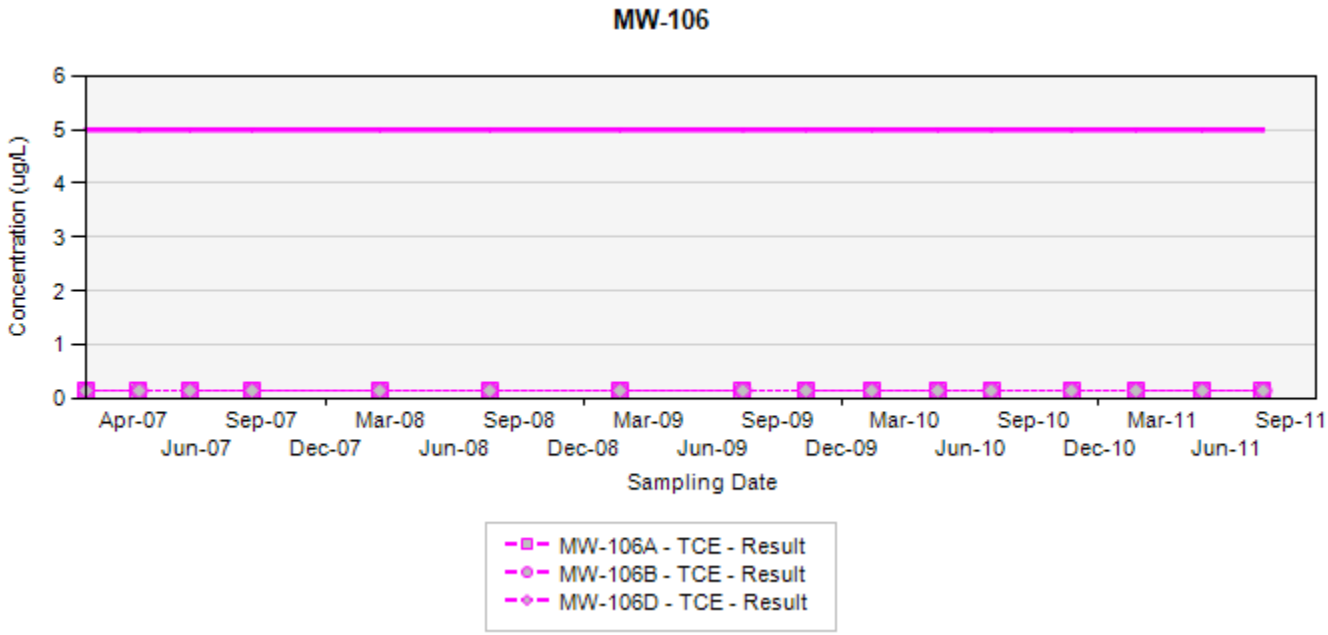

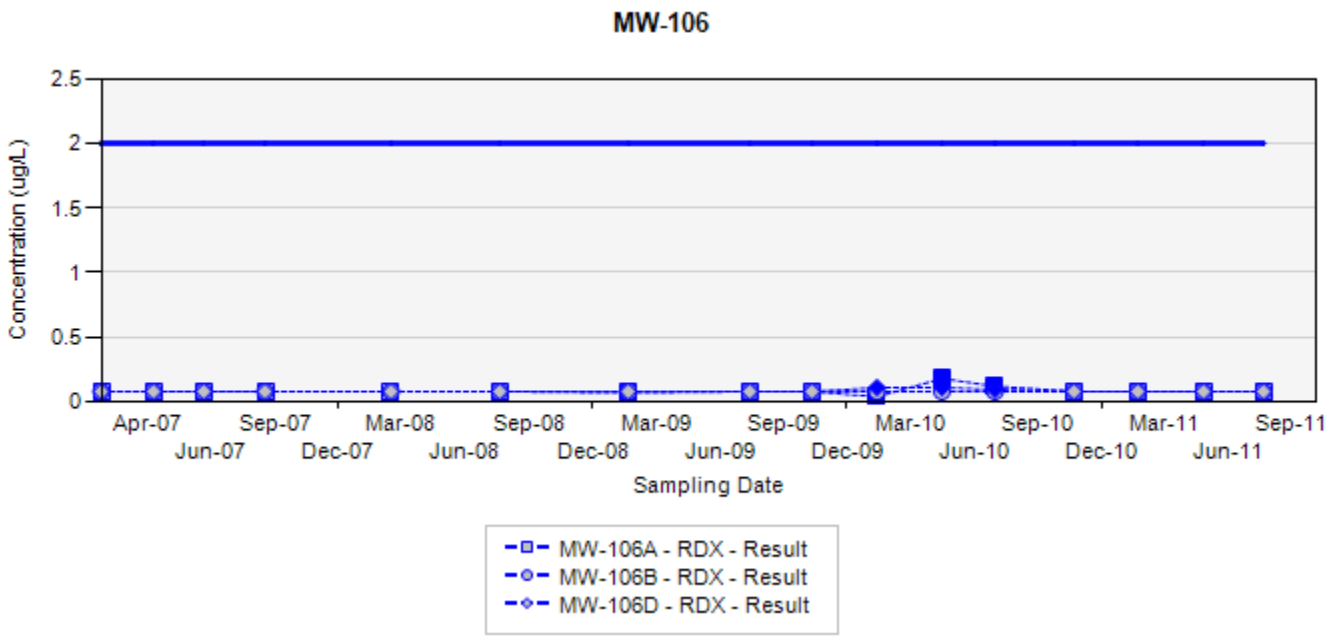

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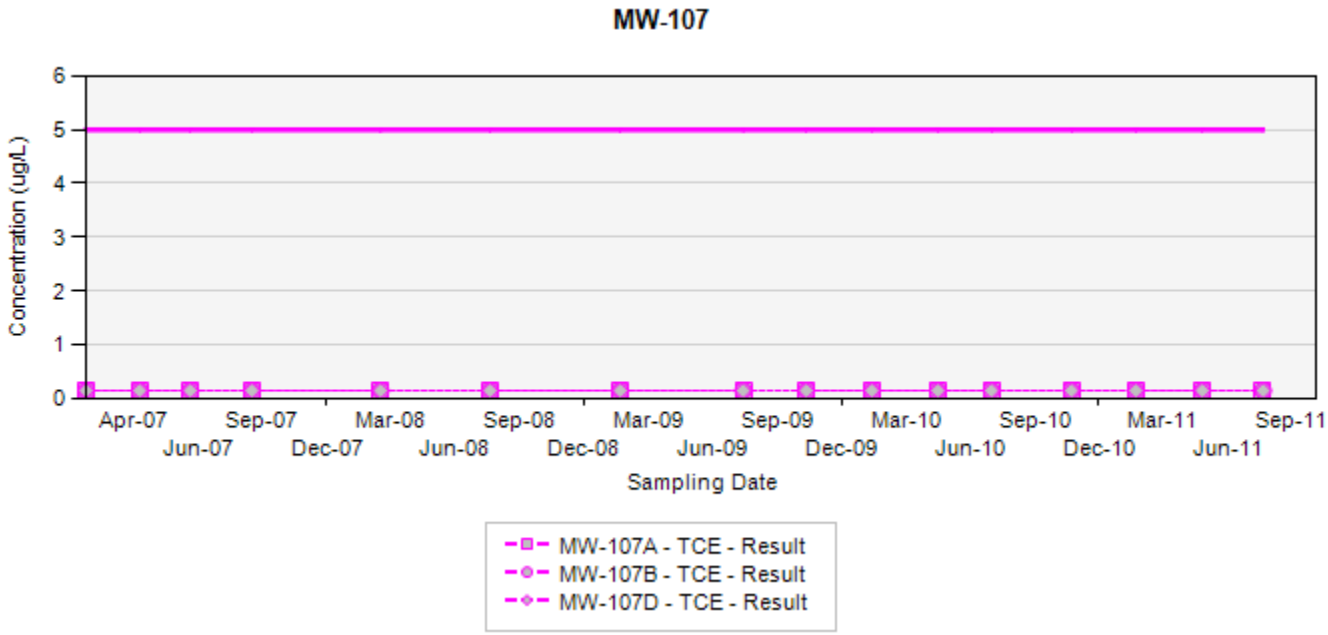

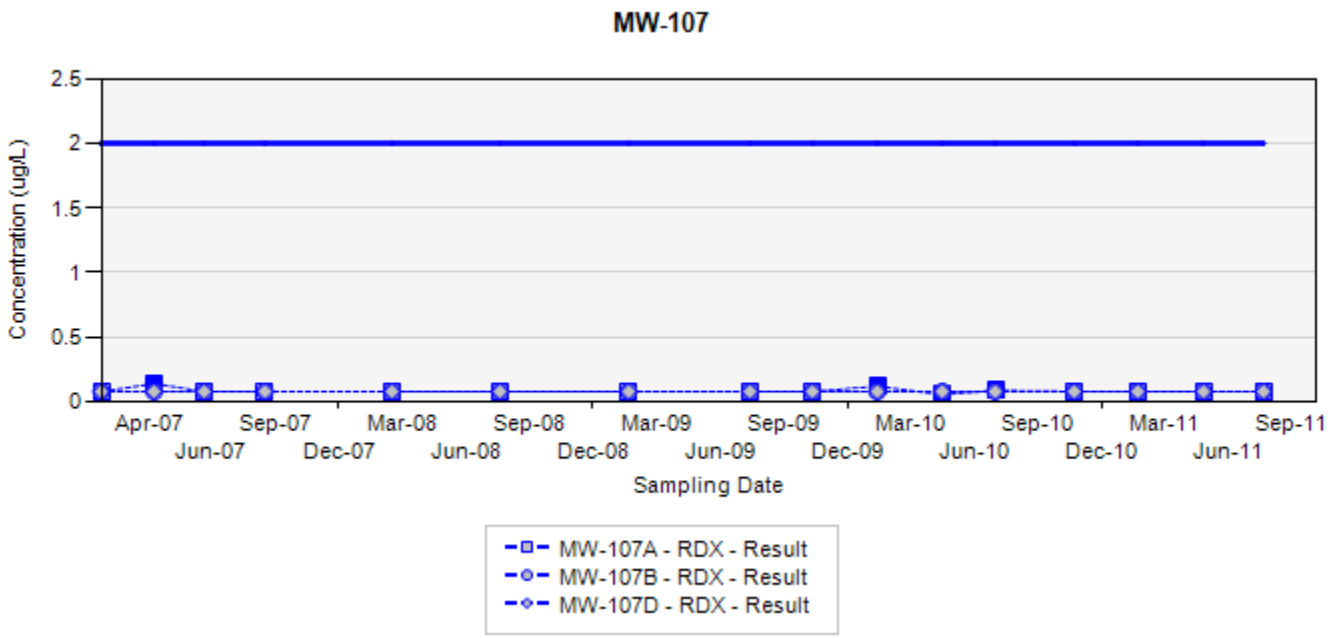

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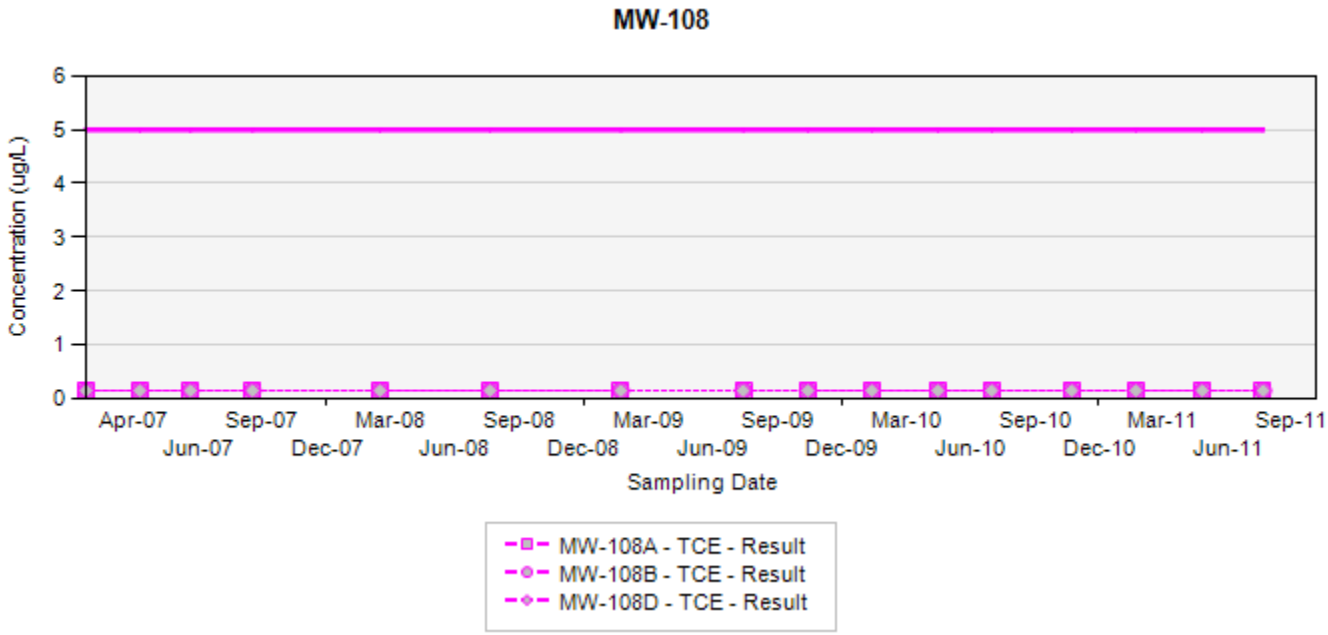

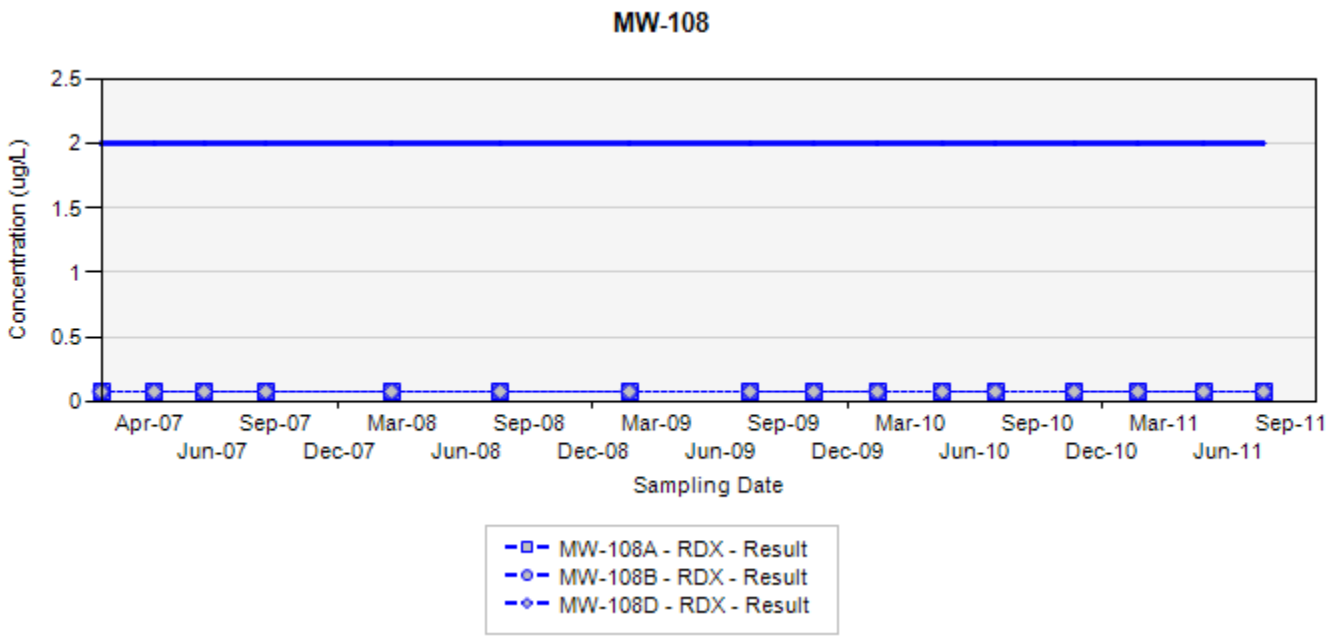

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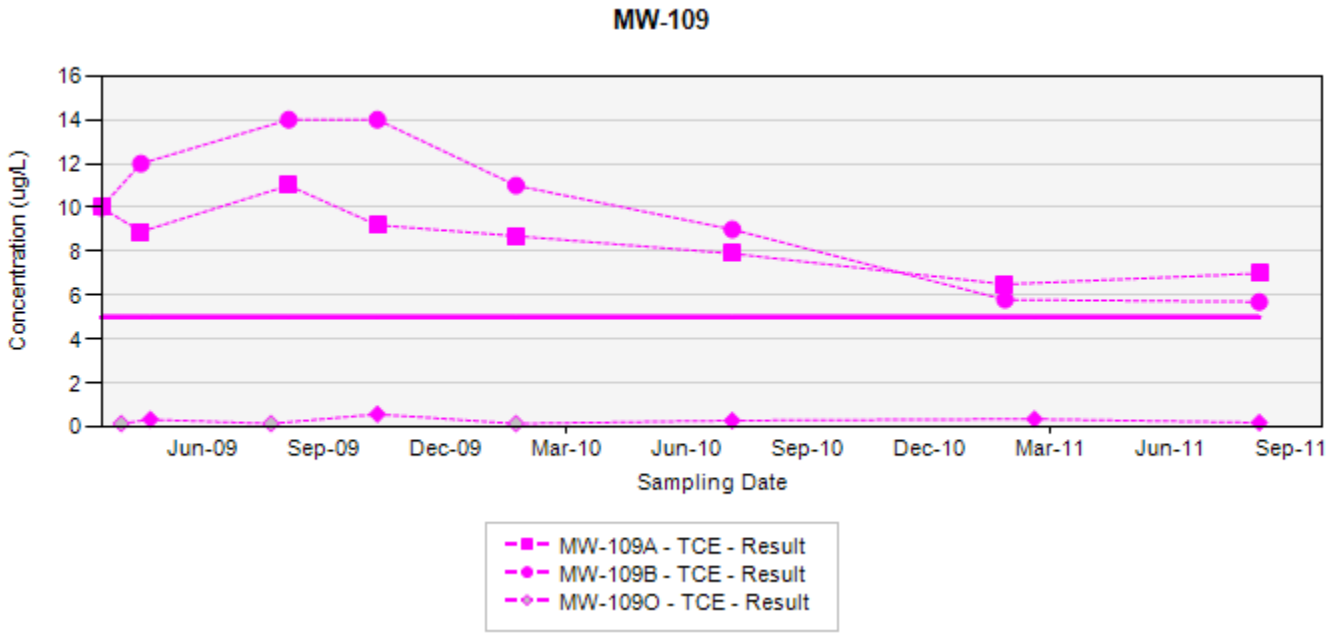

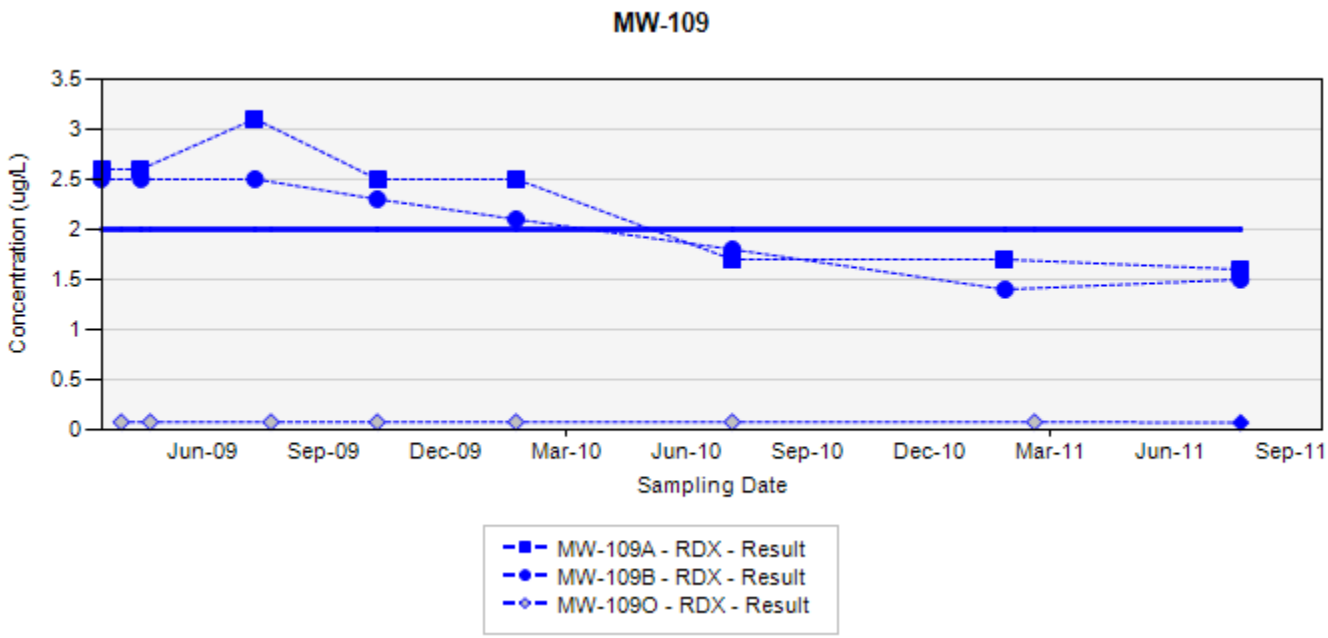

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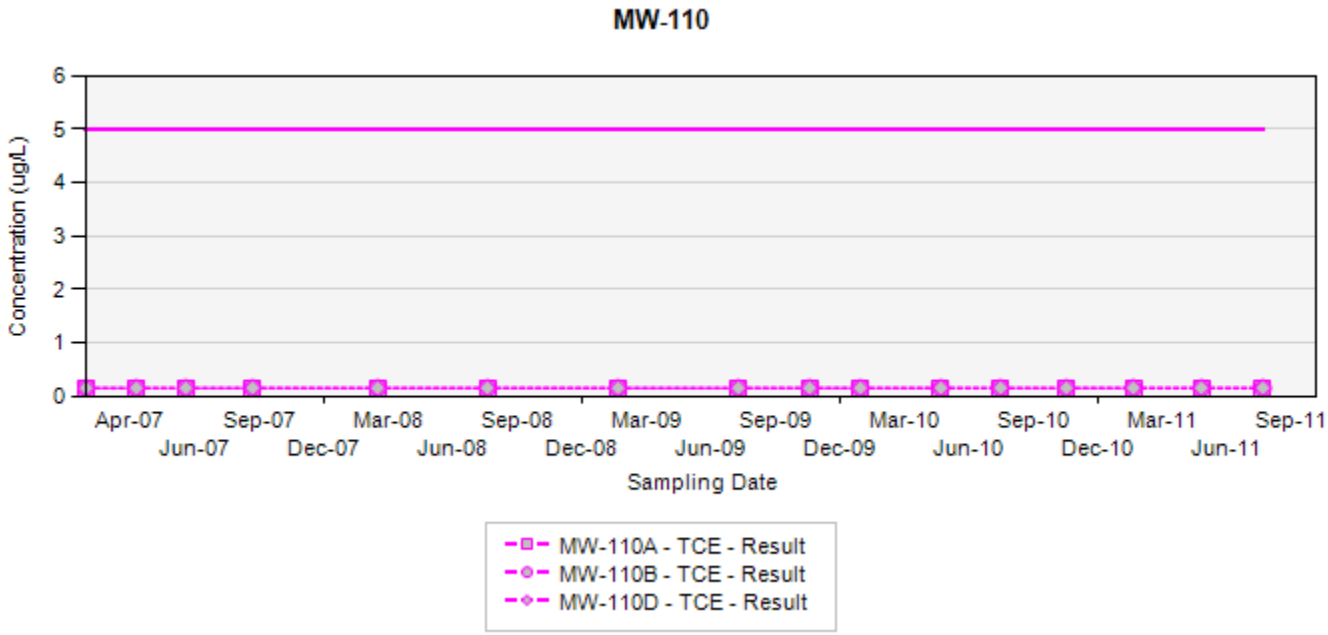

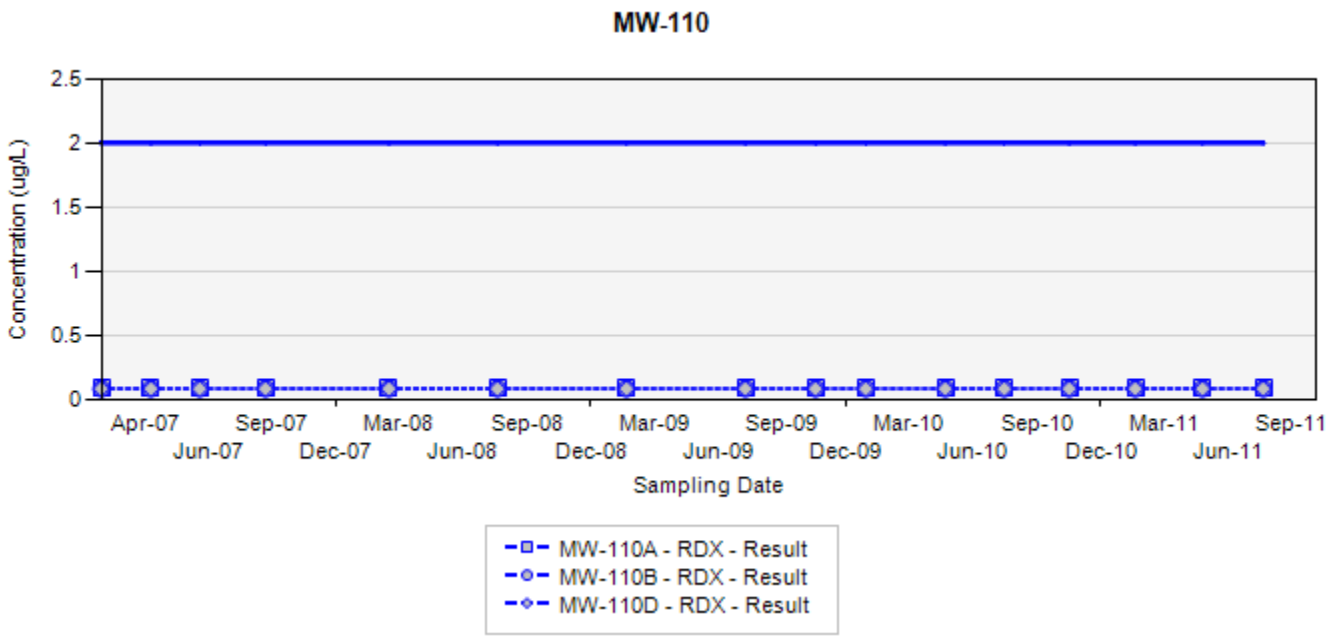

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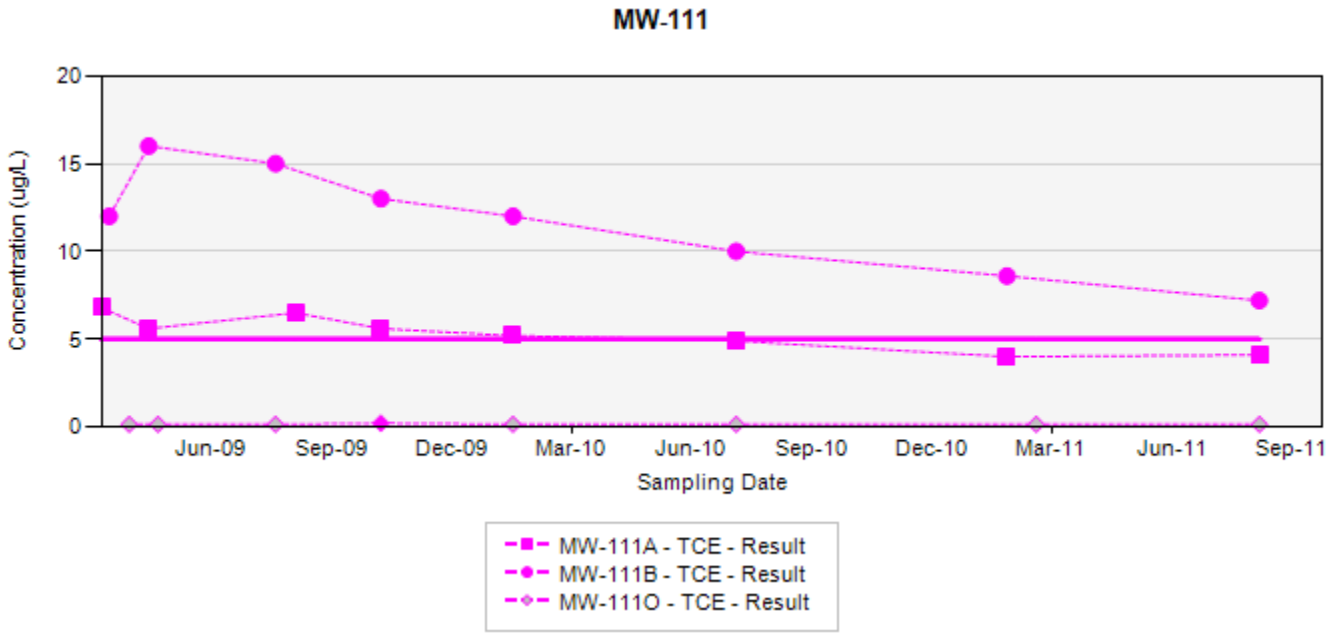

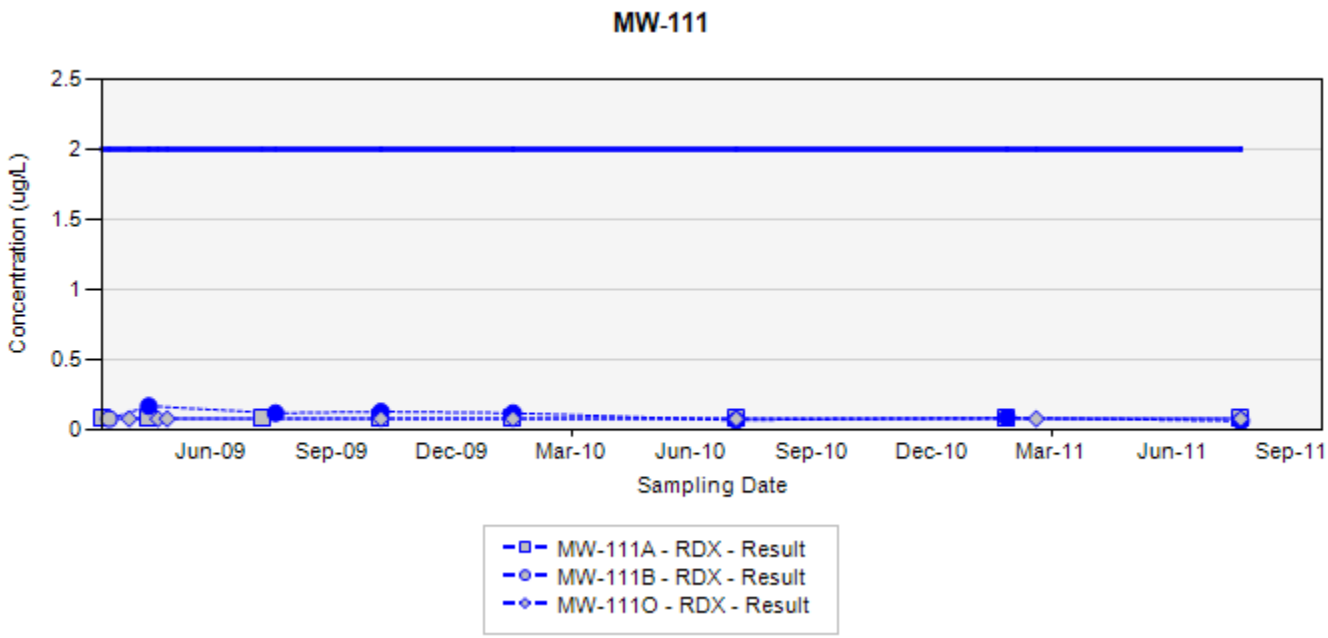

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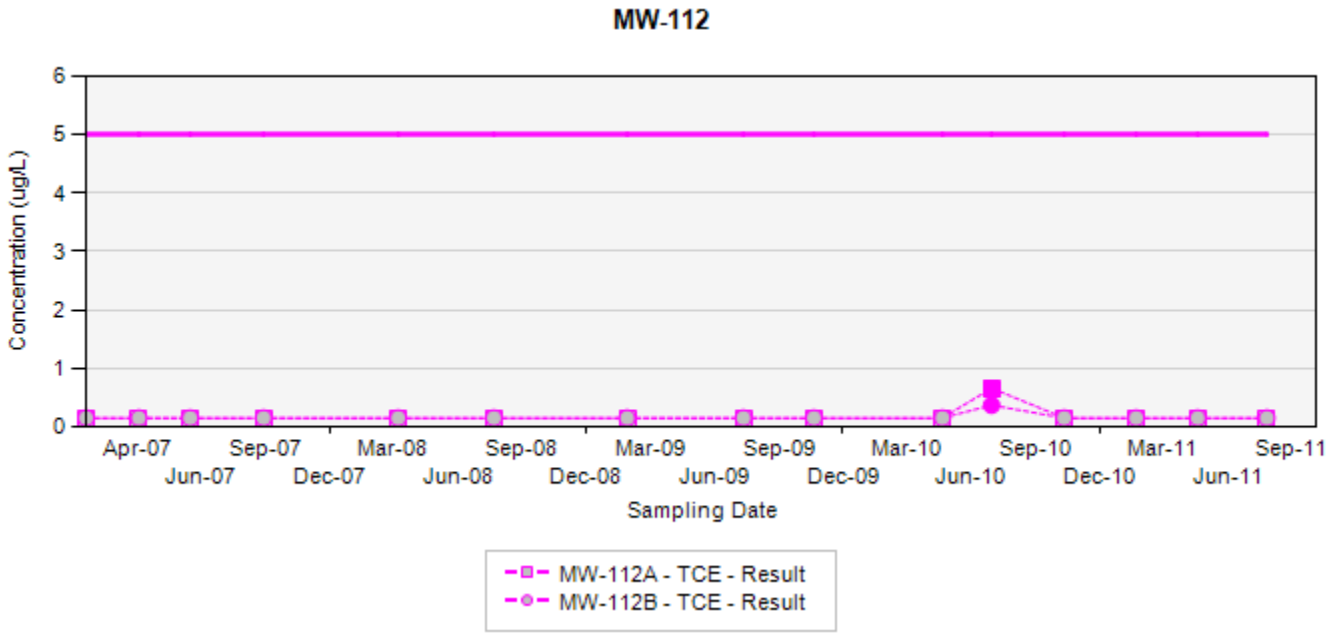

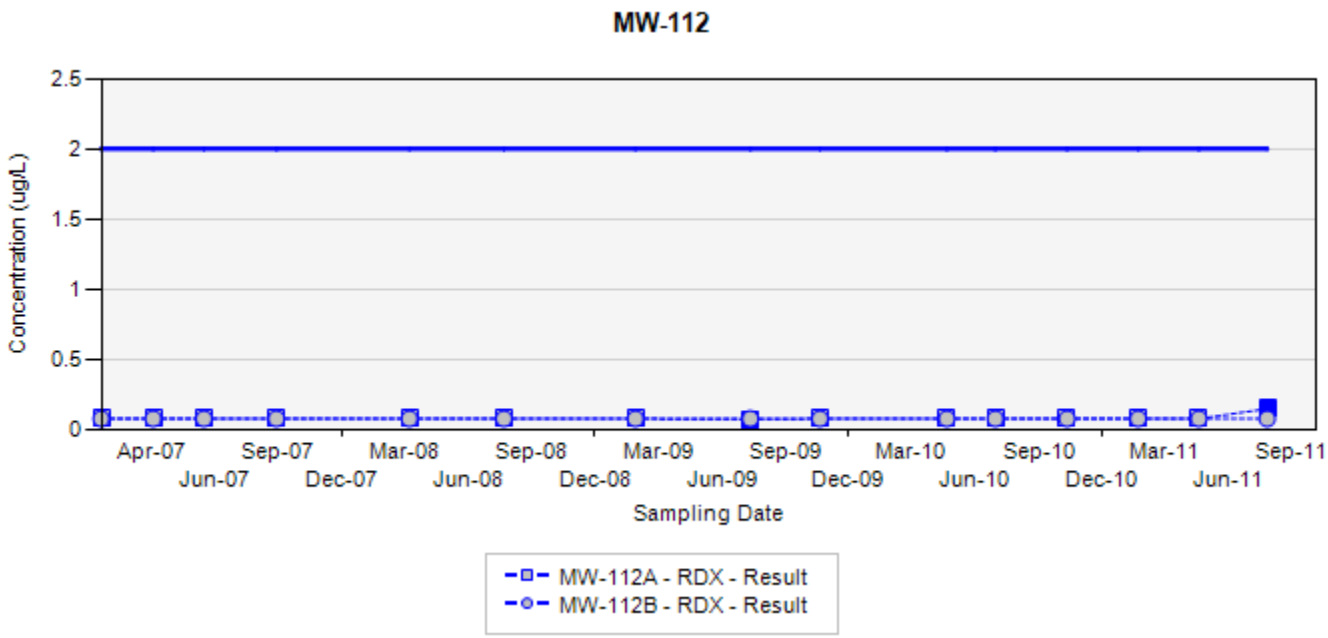

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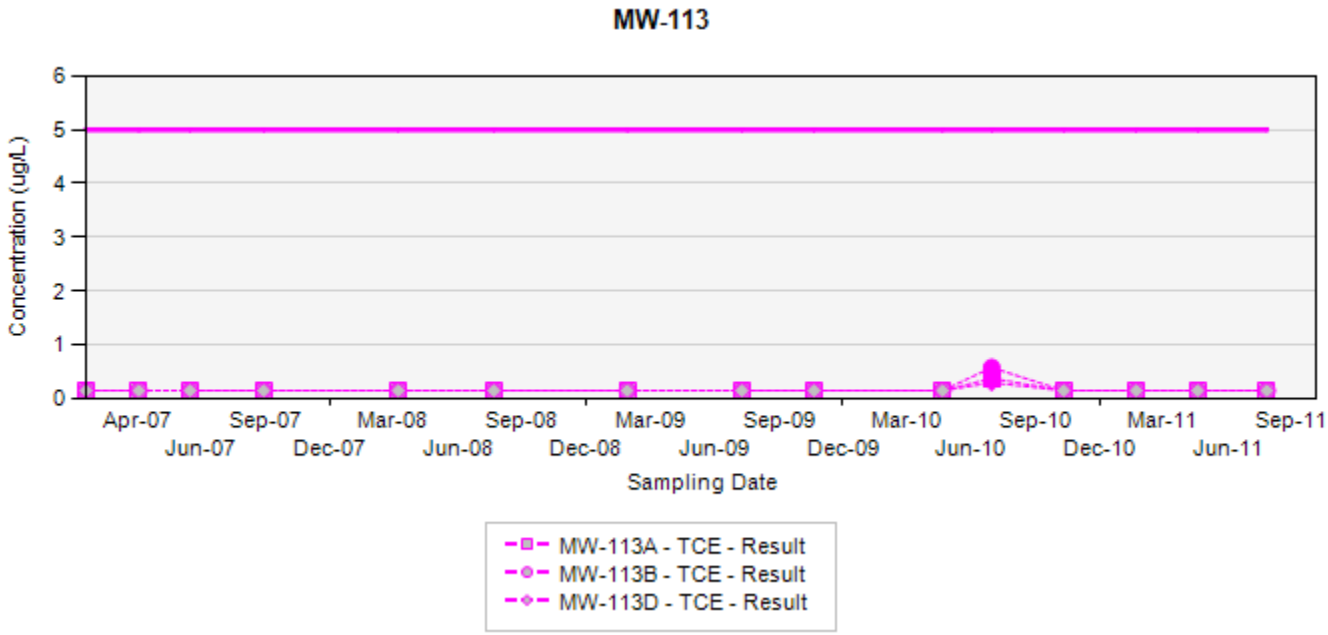

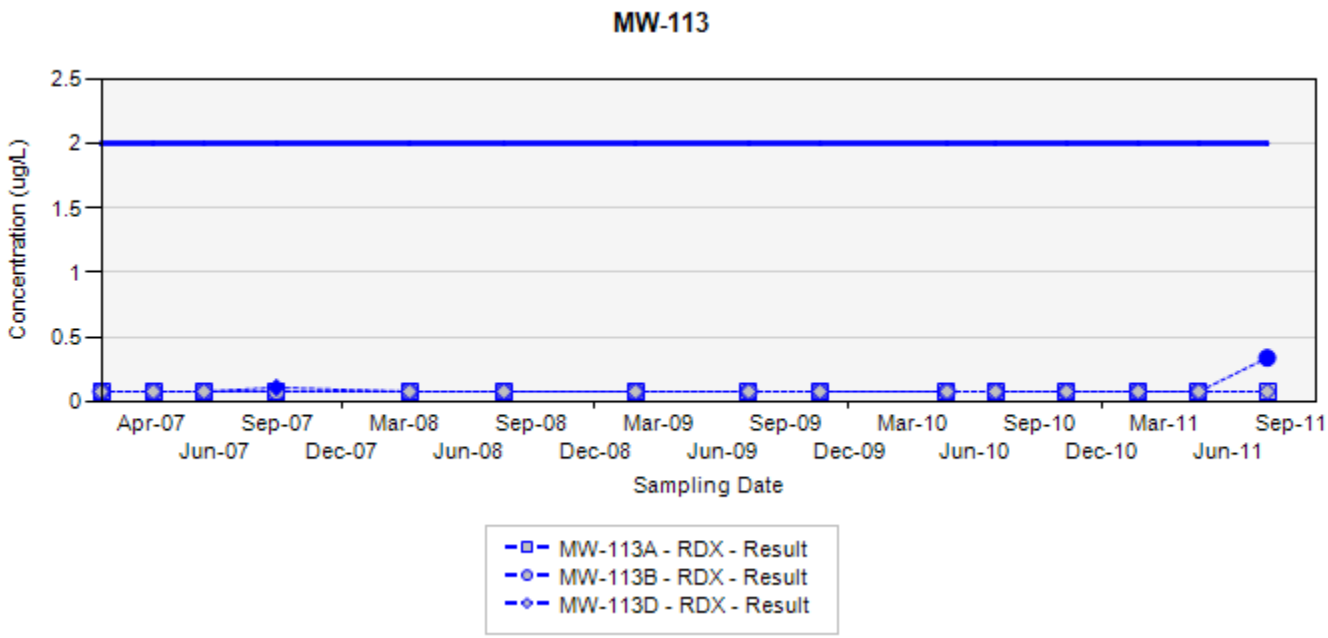

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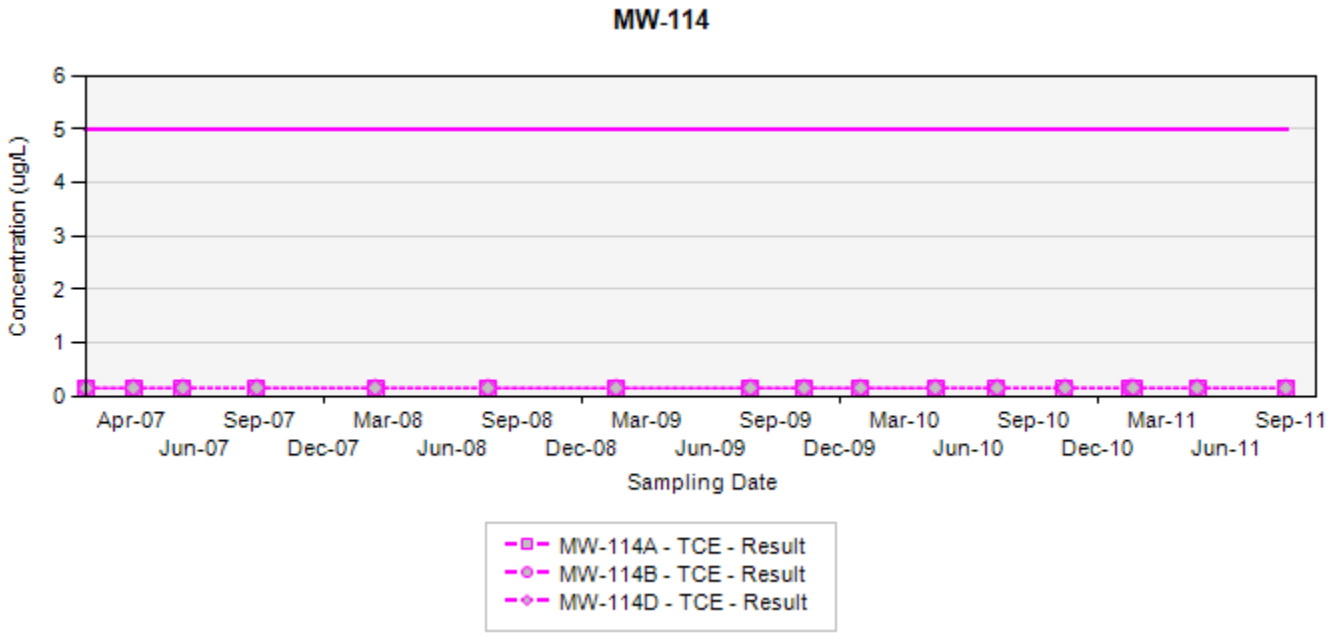

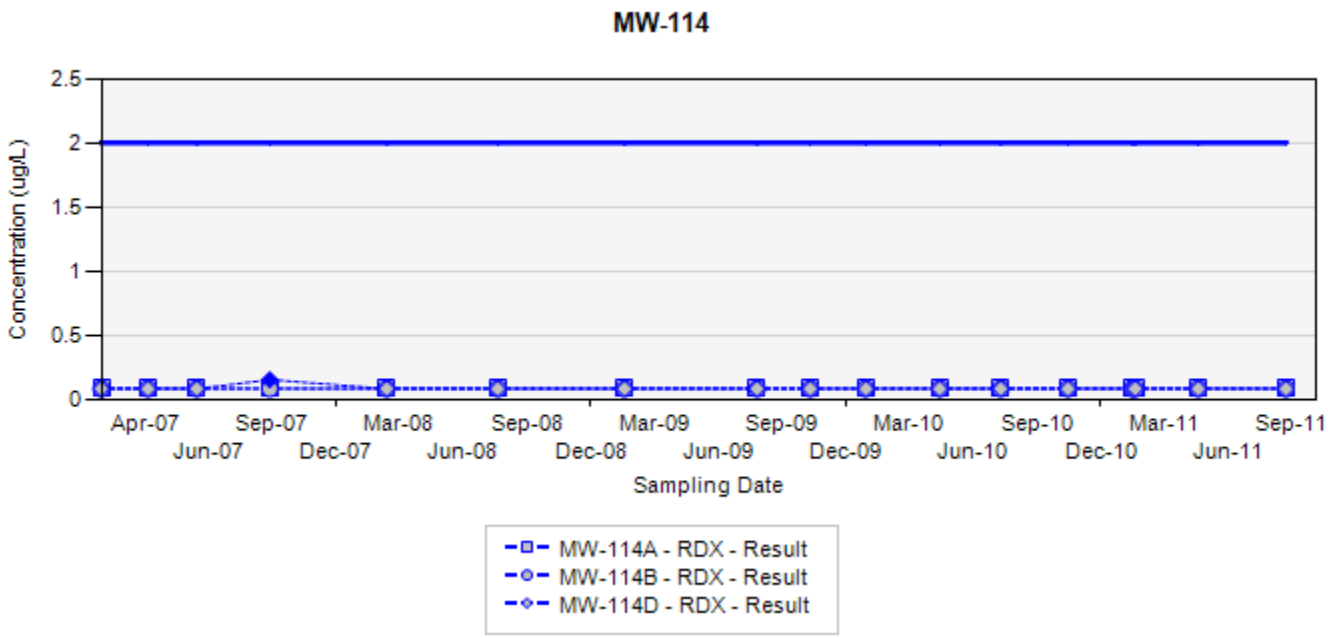

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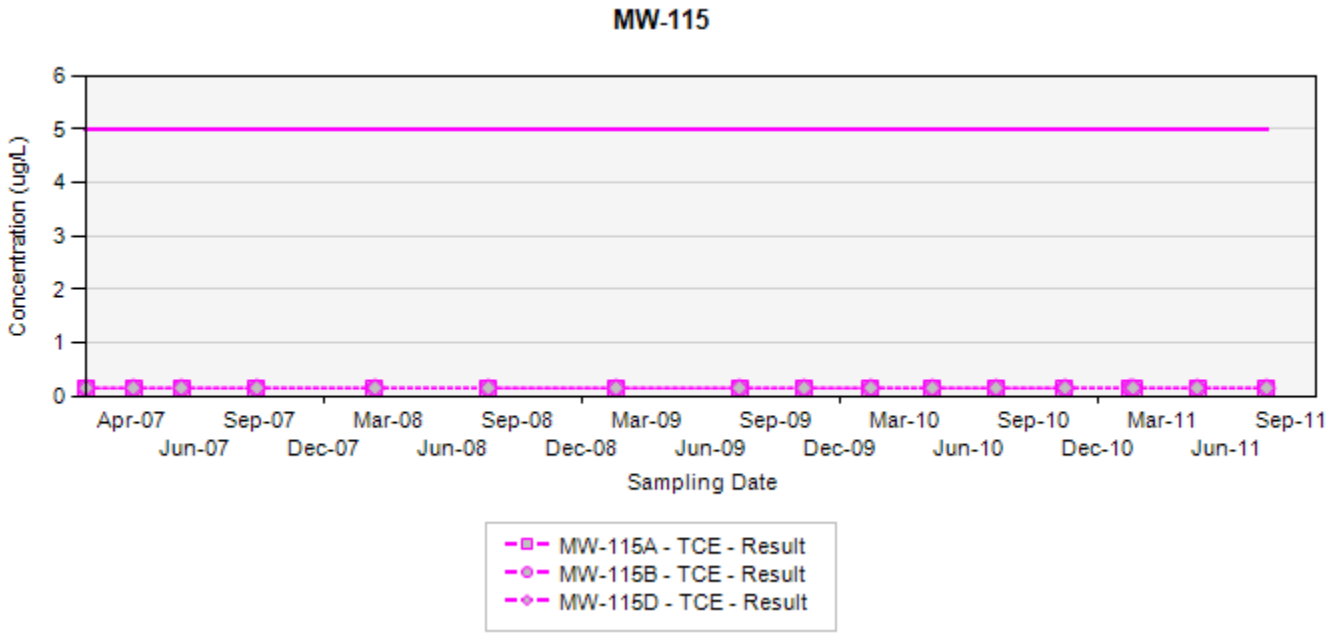

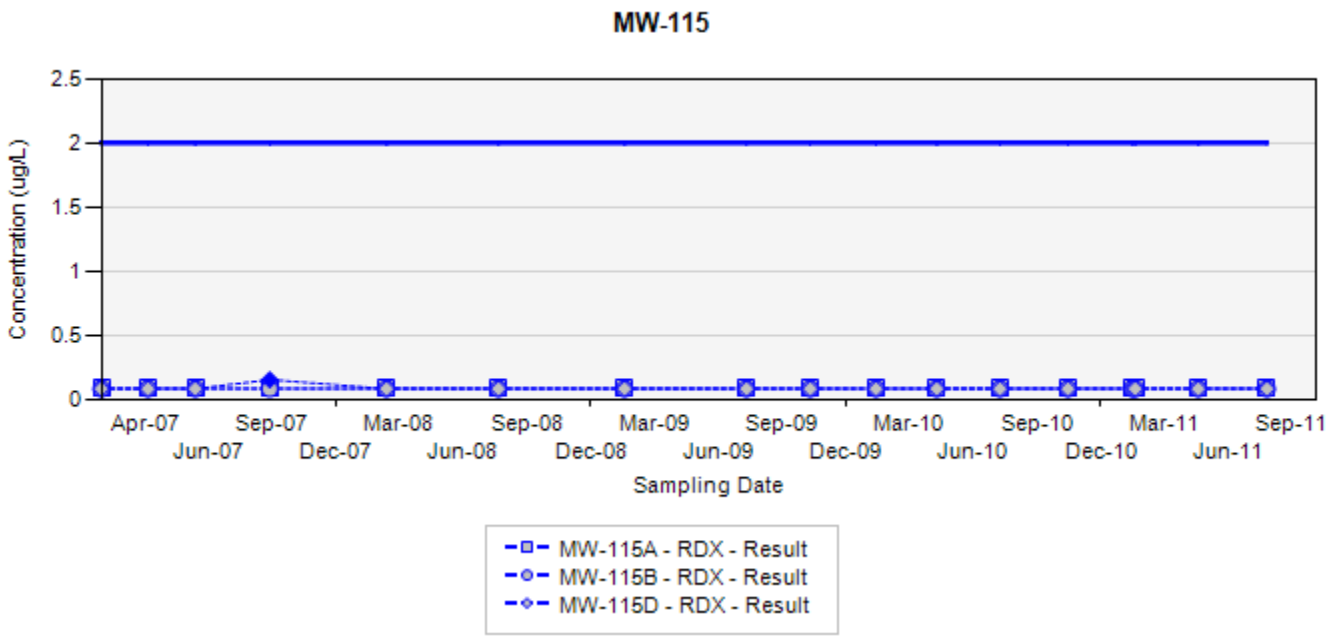

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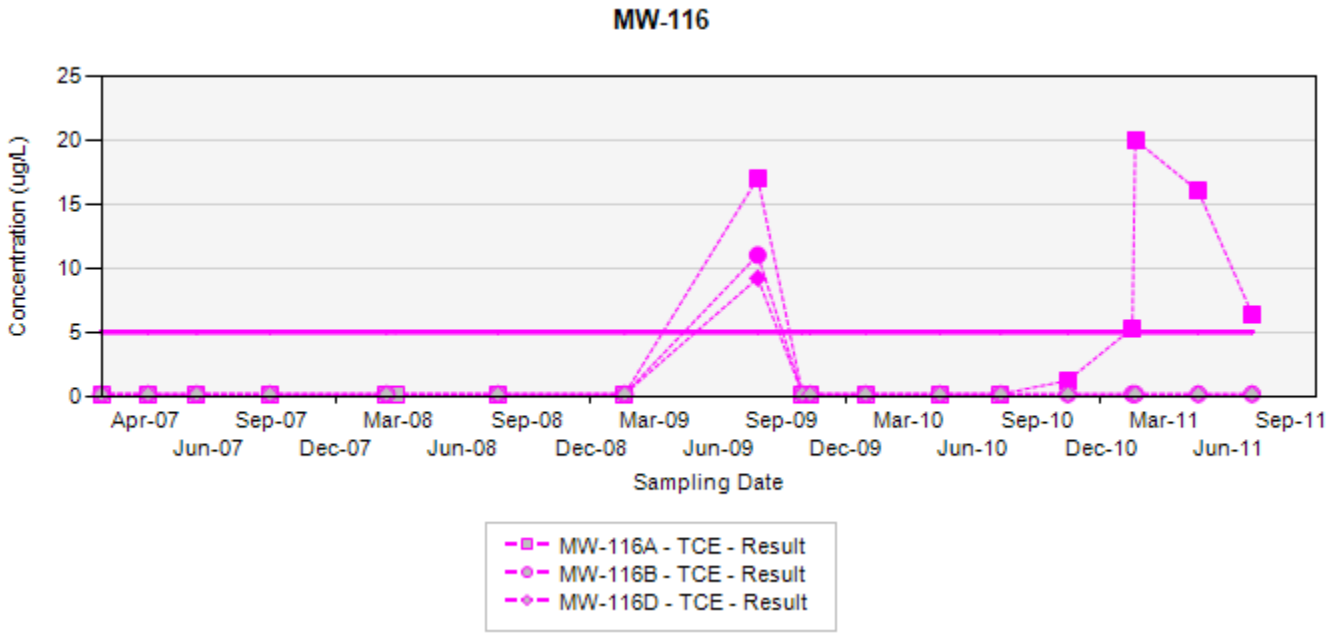

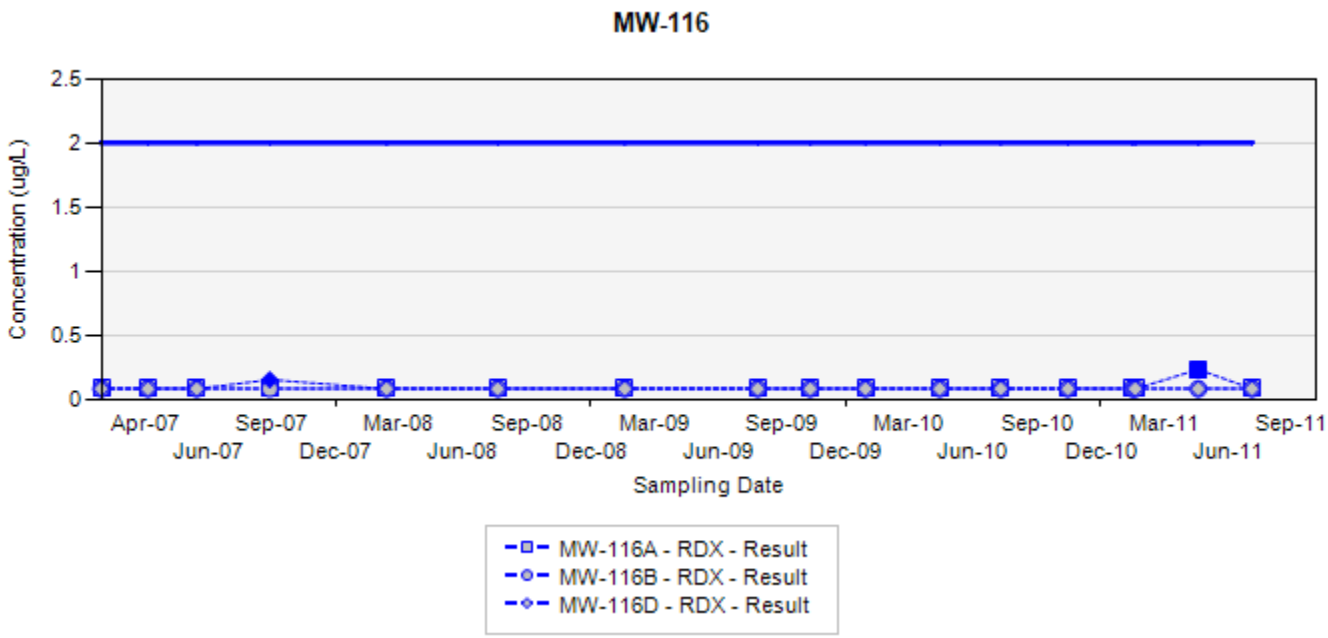

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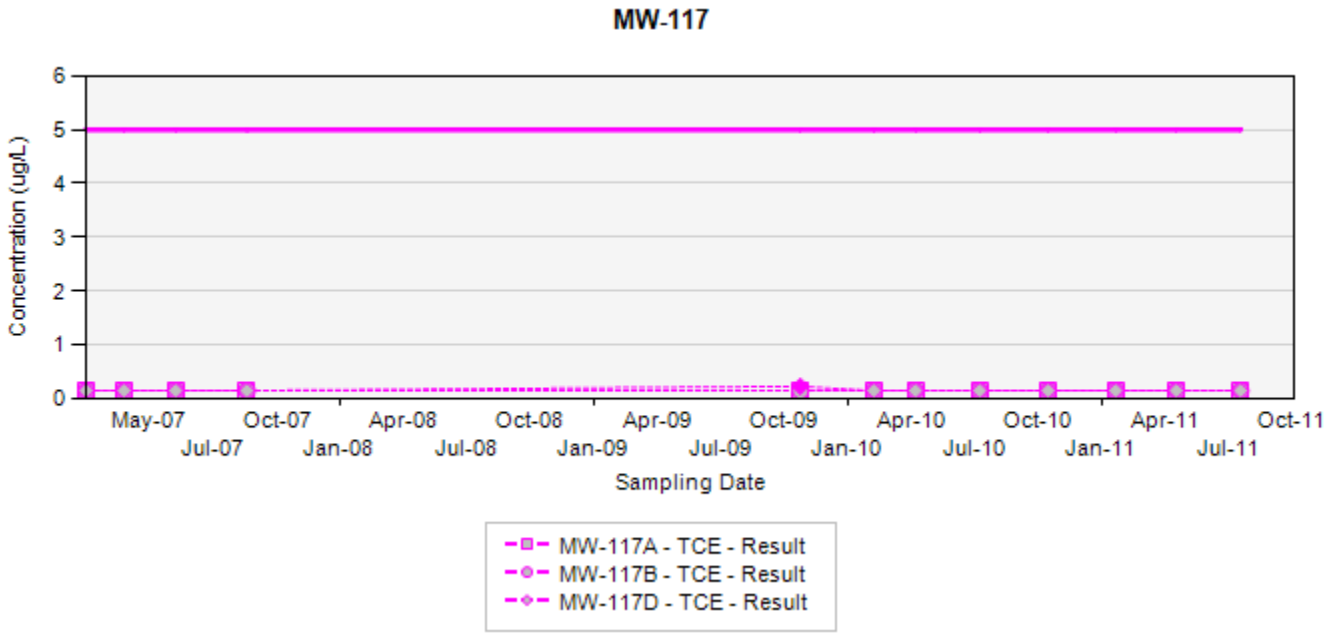

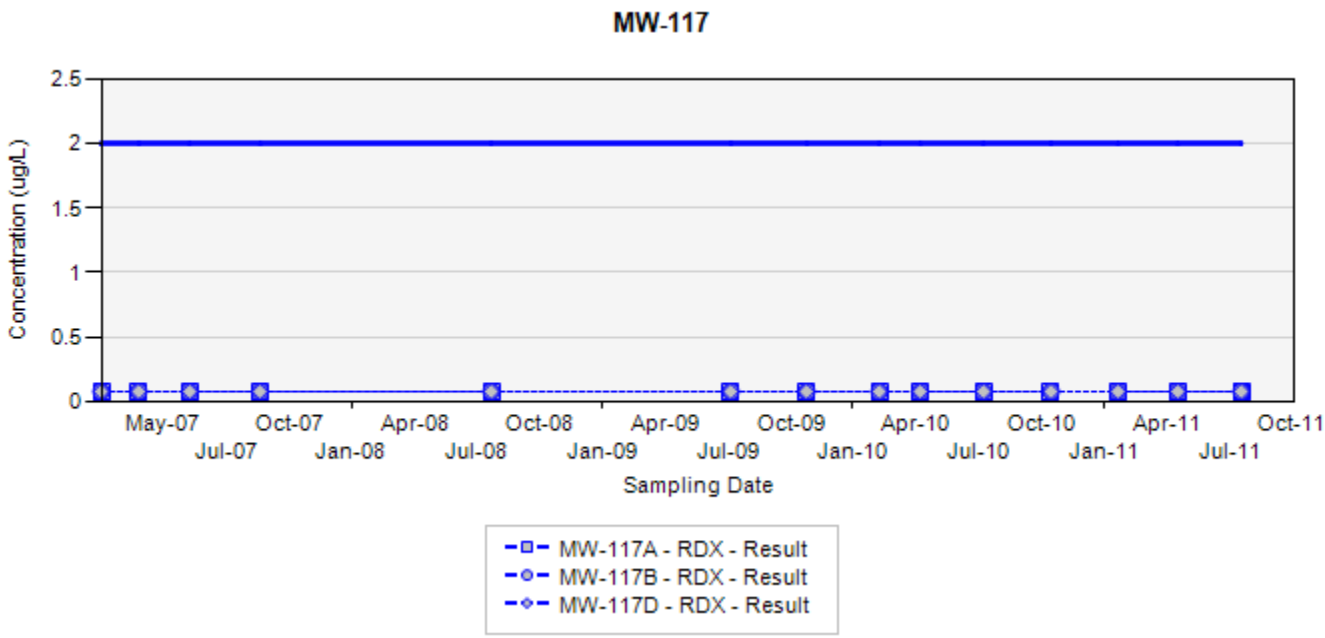

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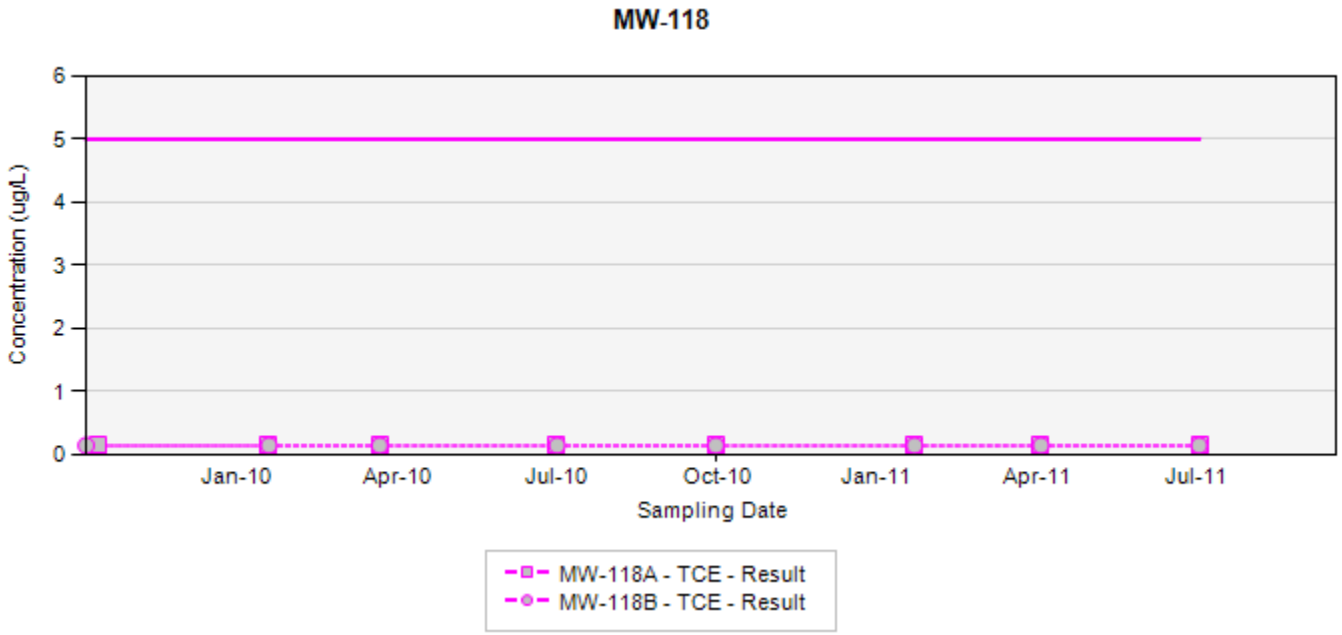

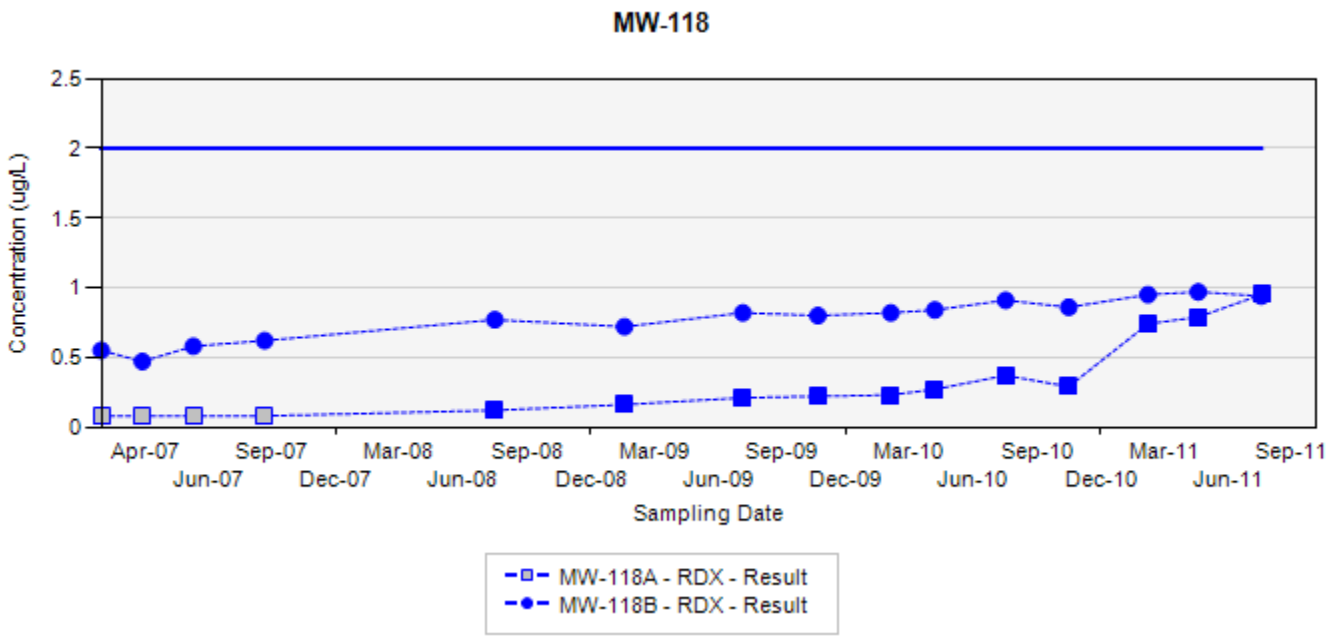

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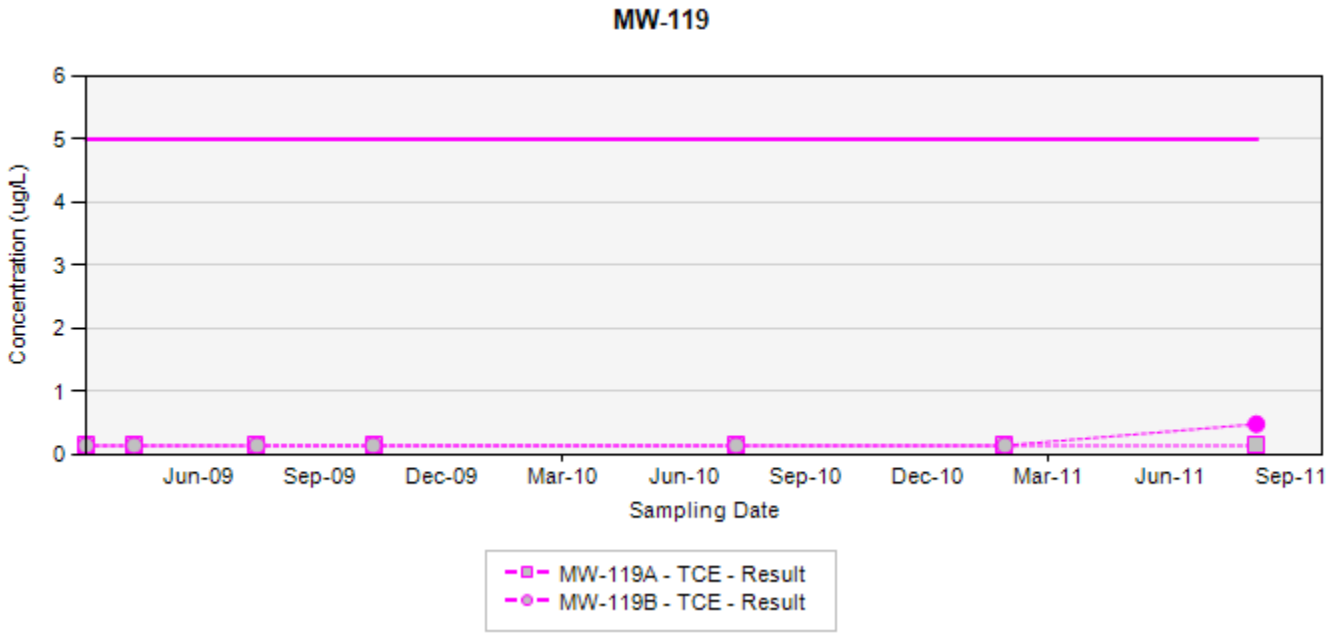

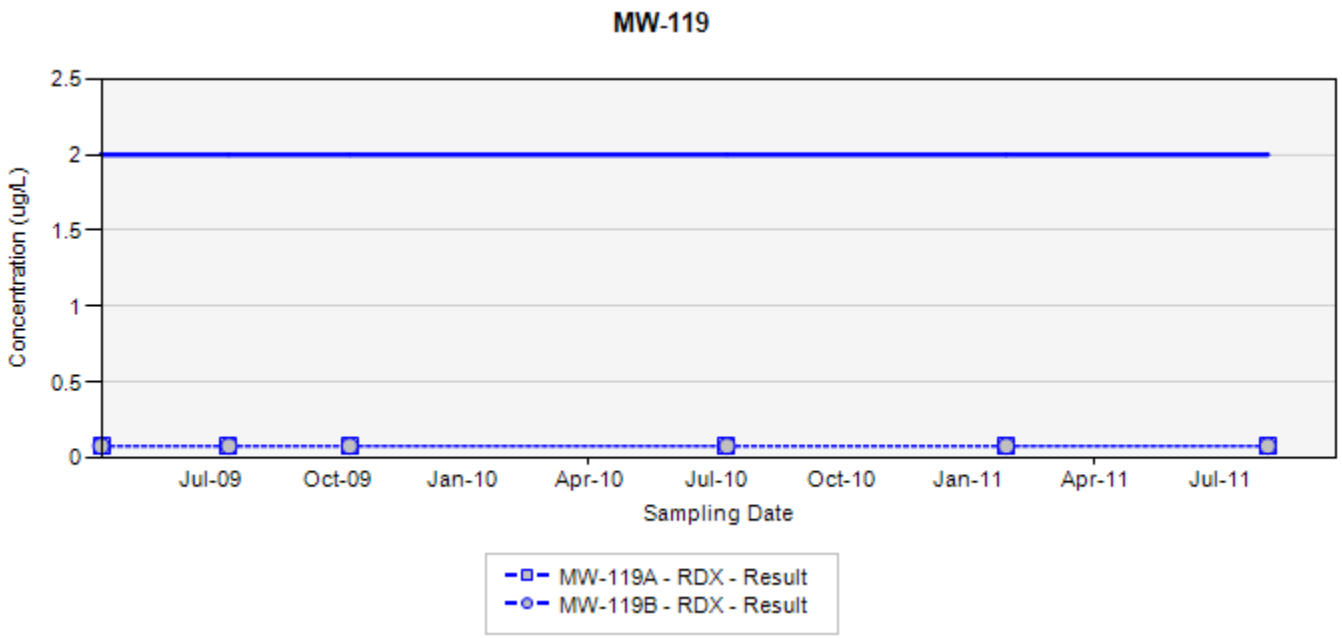

TCE - trichloroethene
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Final Target Groundwater Cleanup Goals for TCE is 5 µg/L
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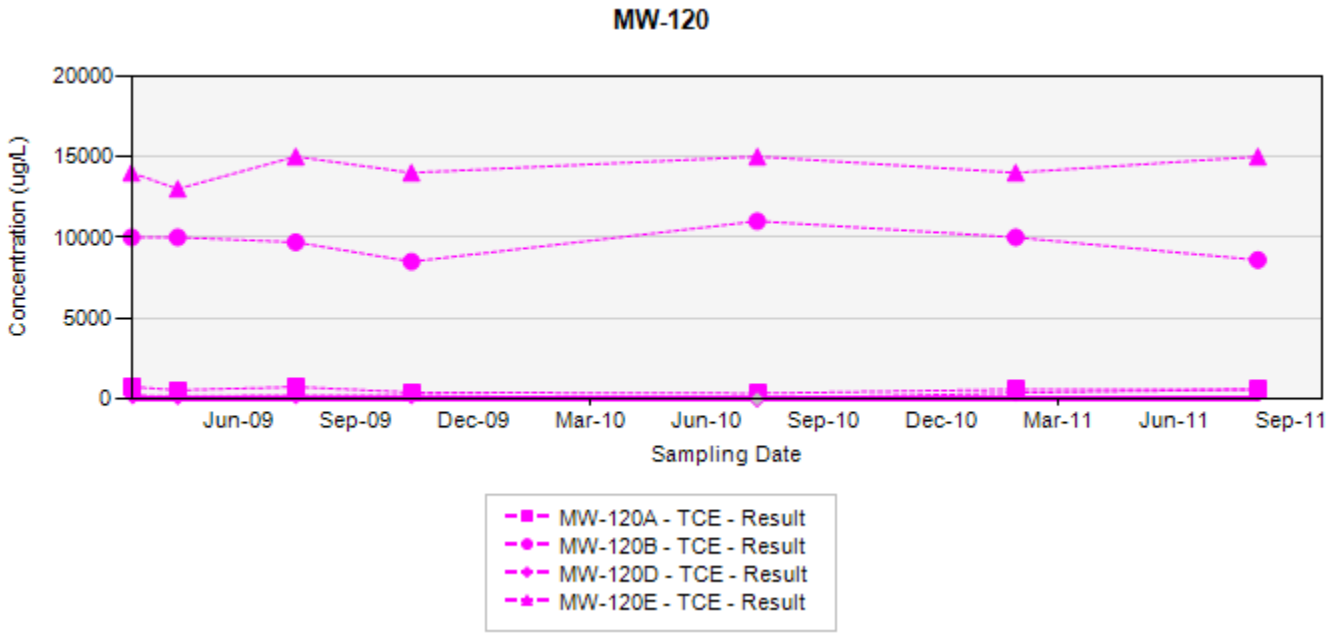

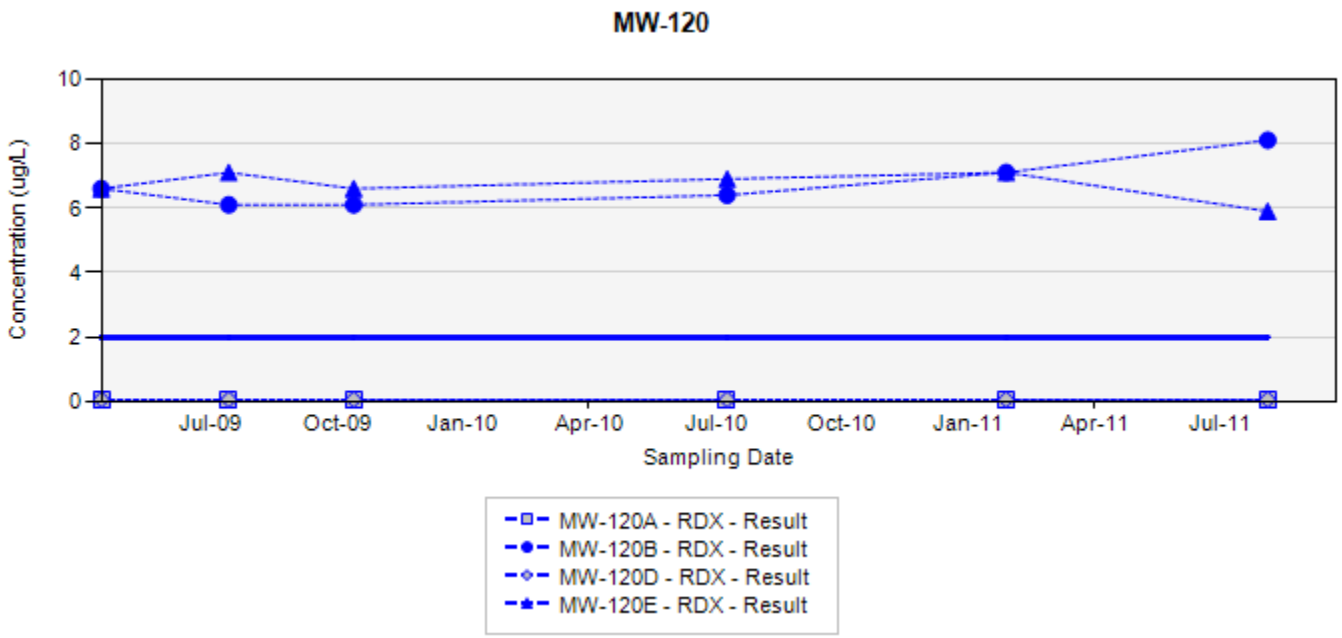

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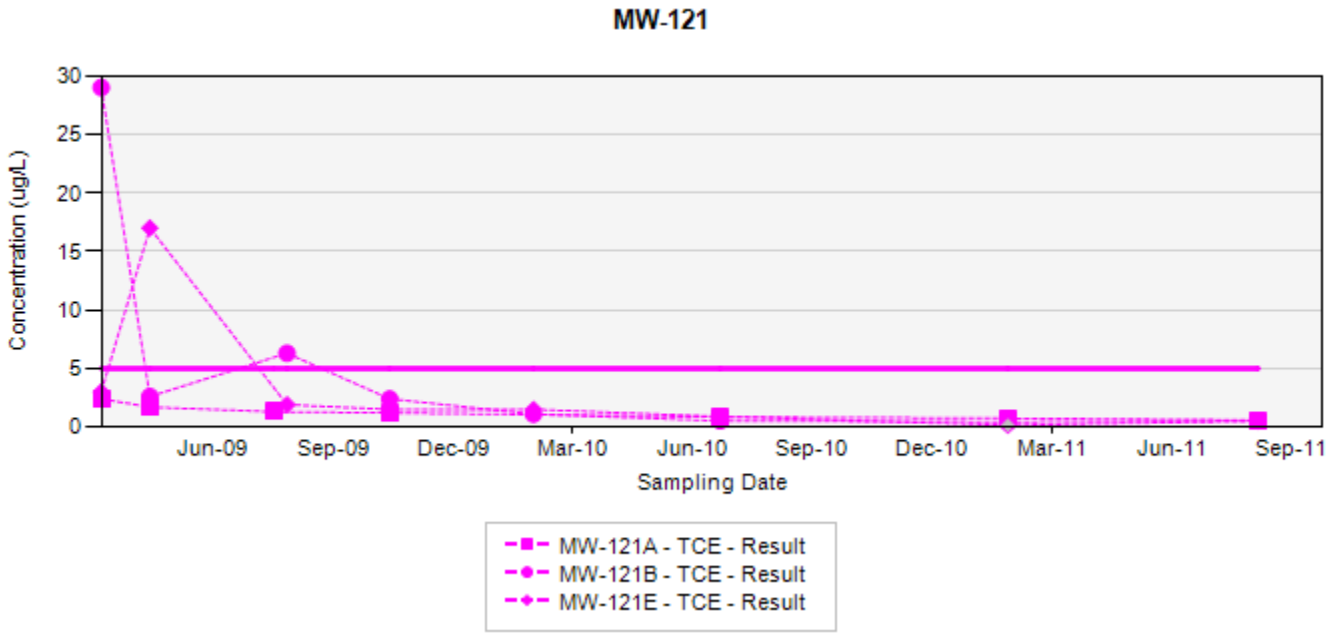

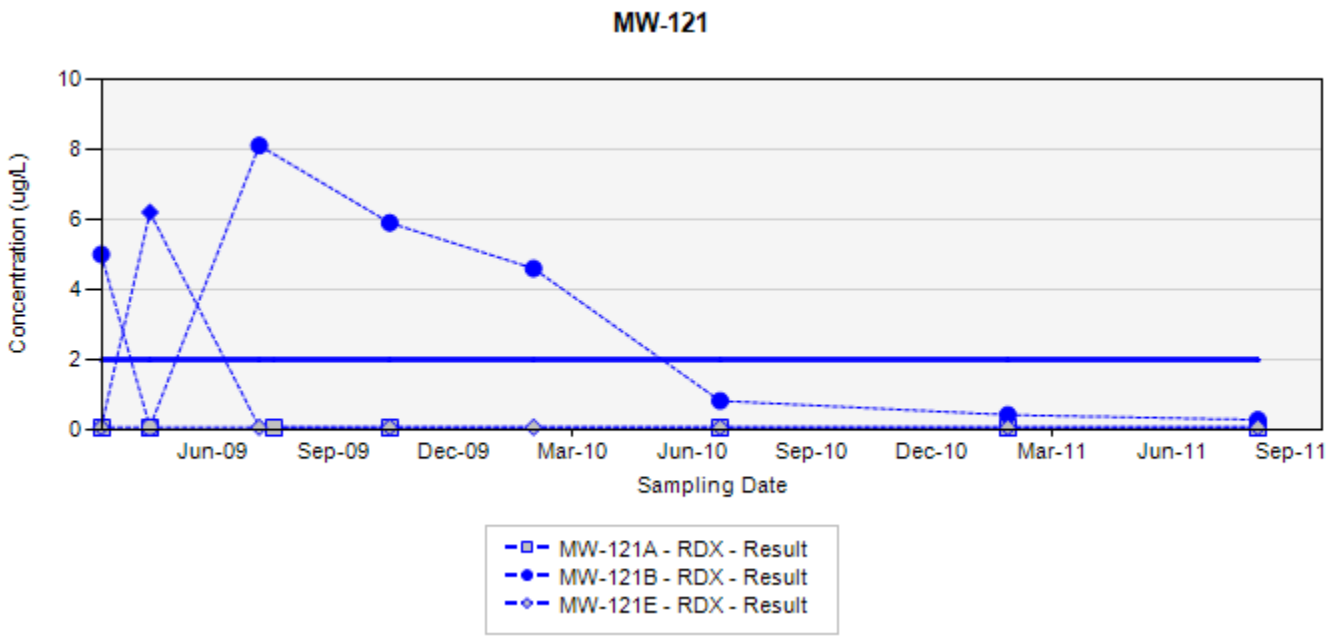

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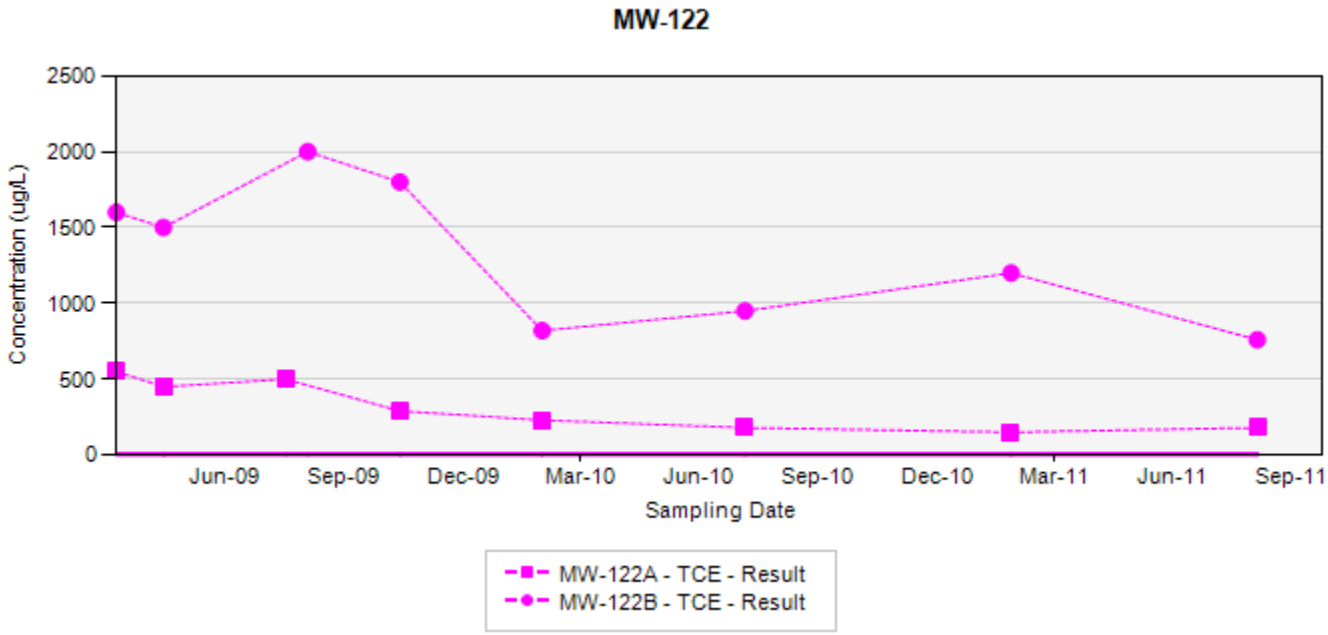

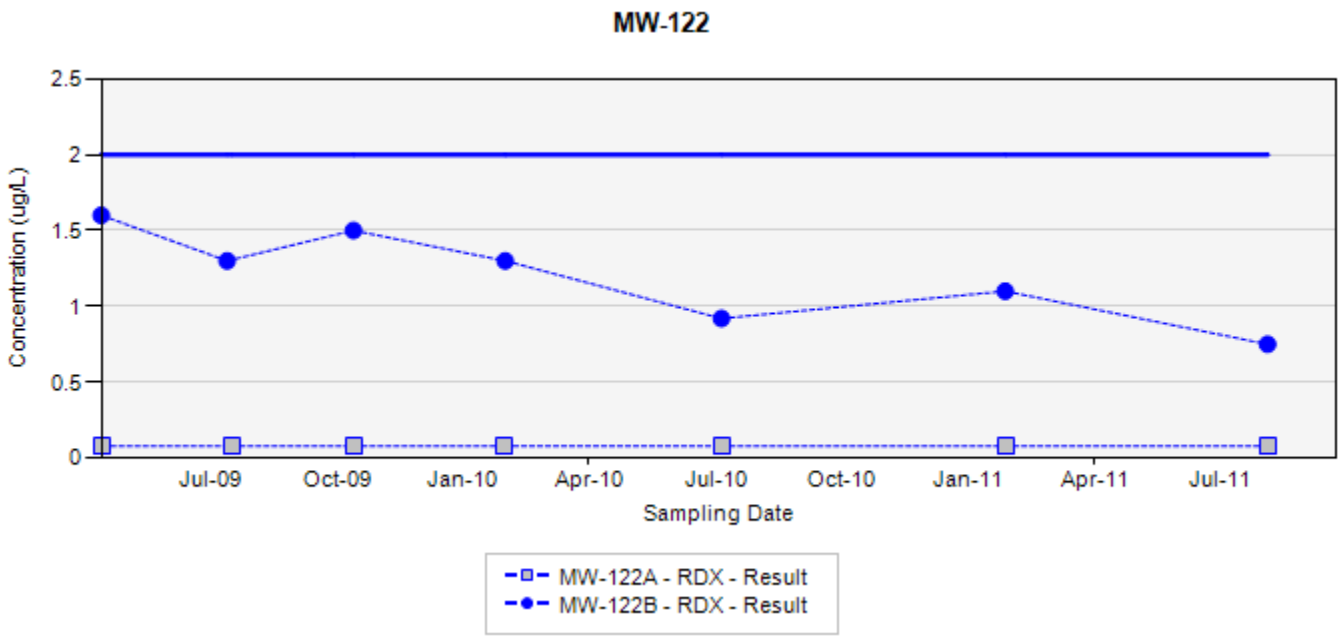

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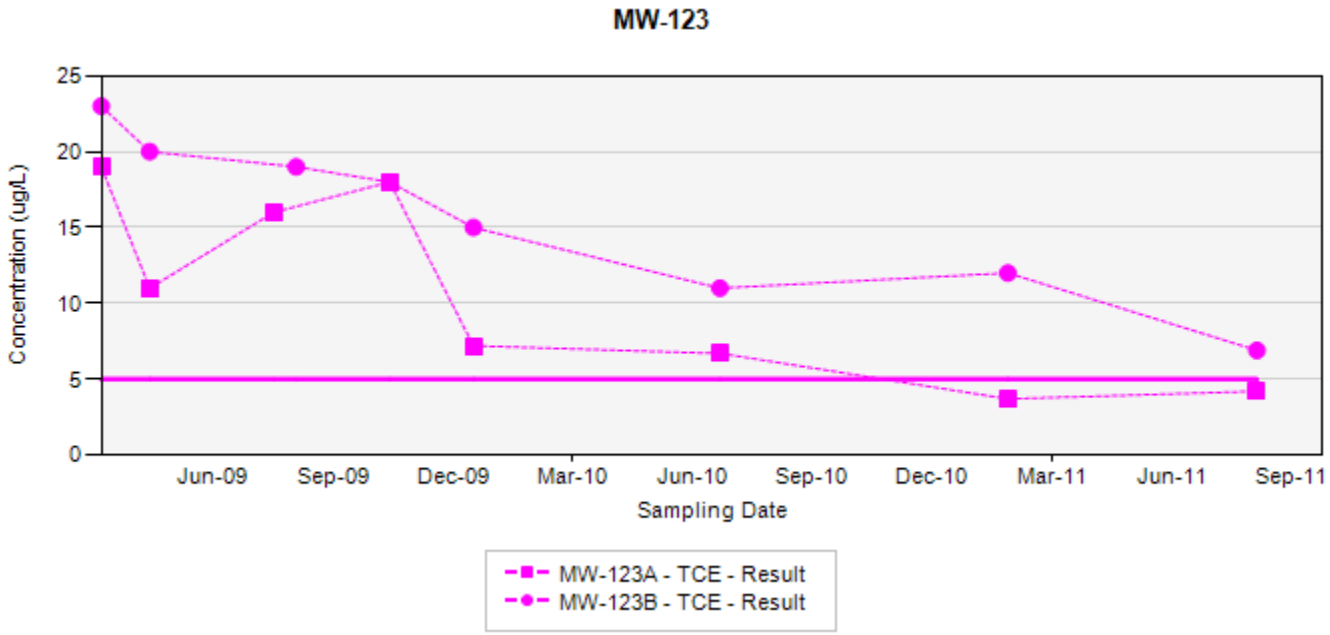

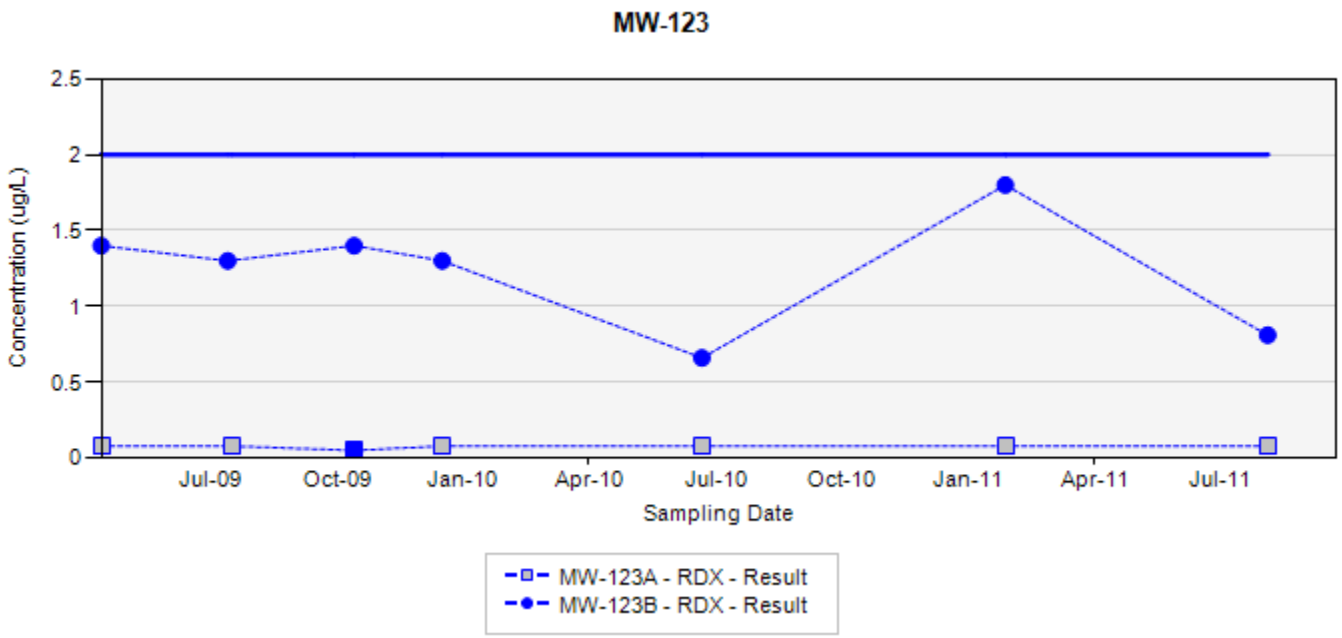

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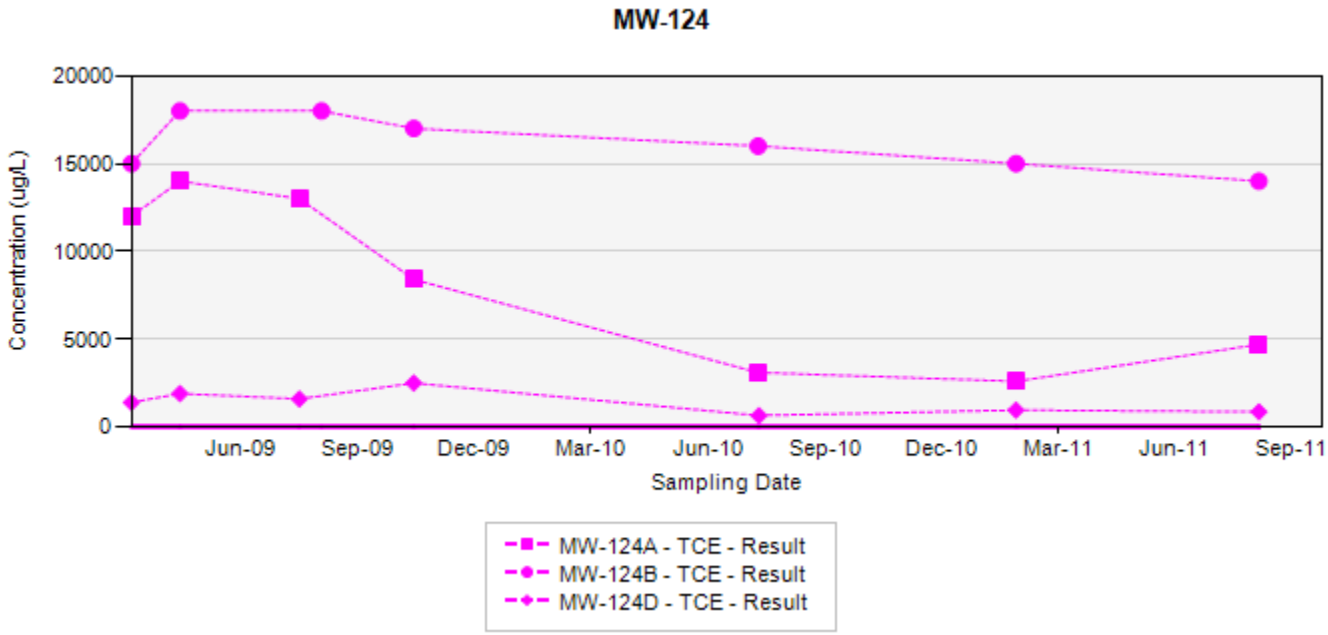

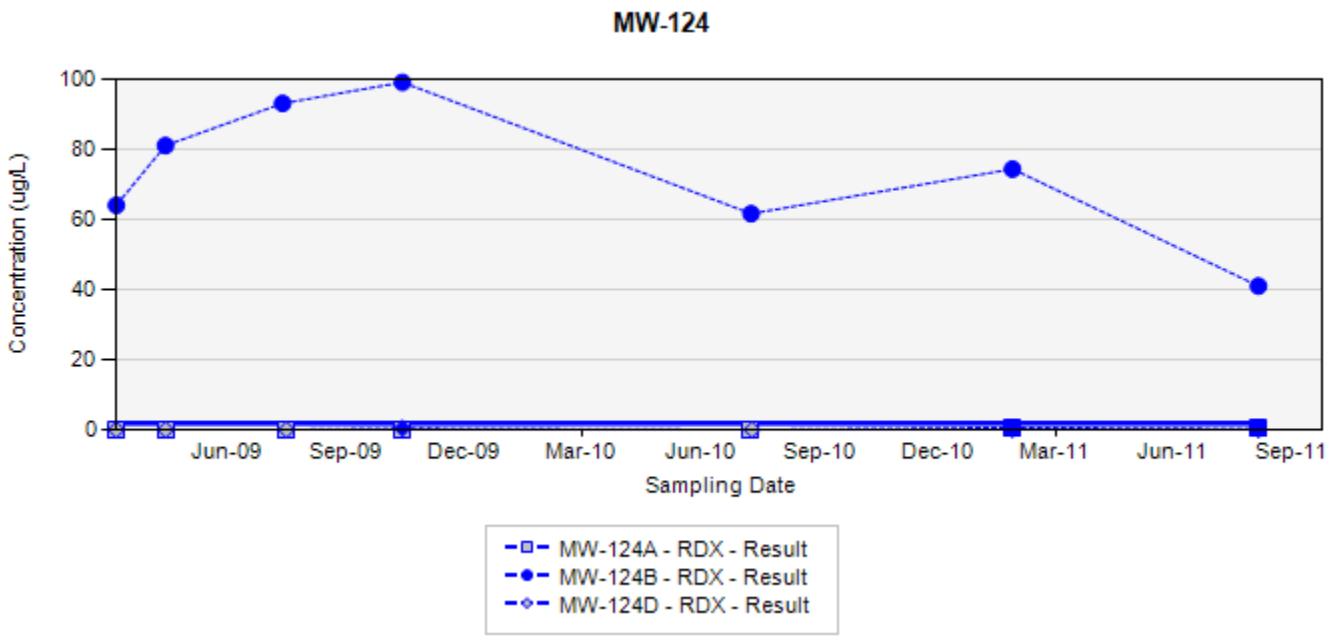

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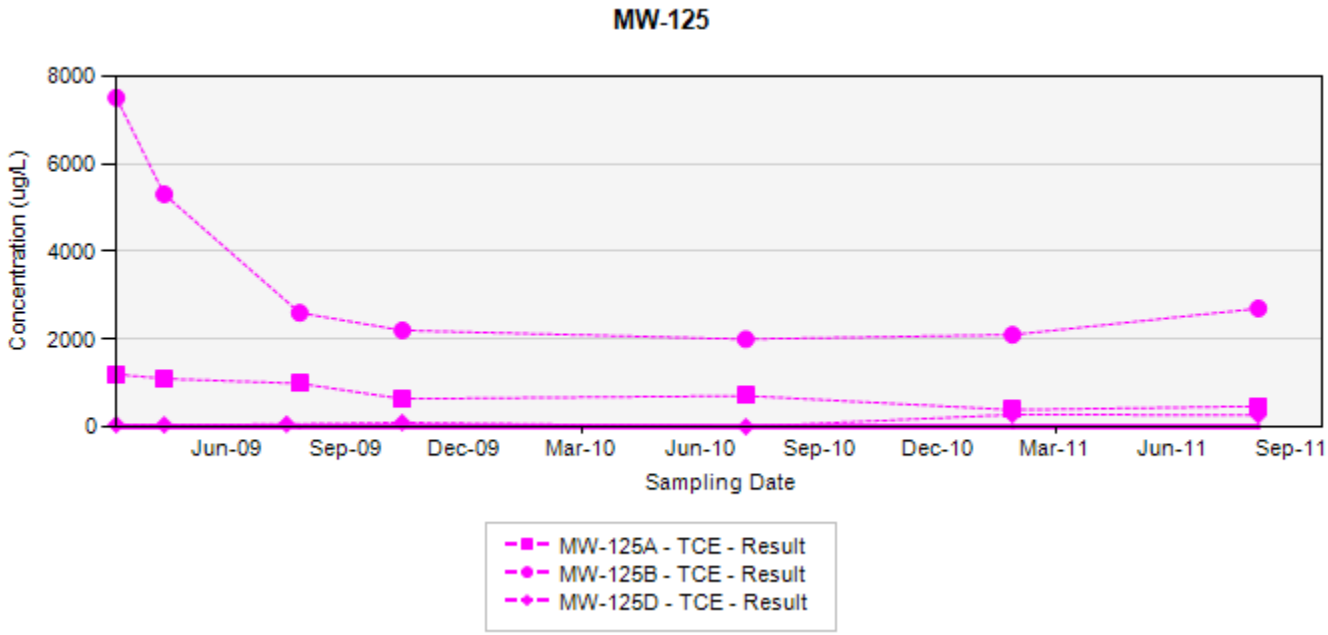

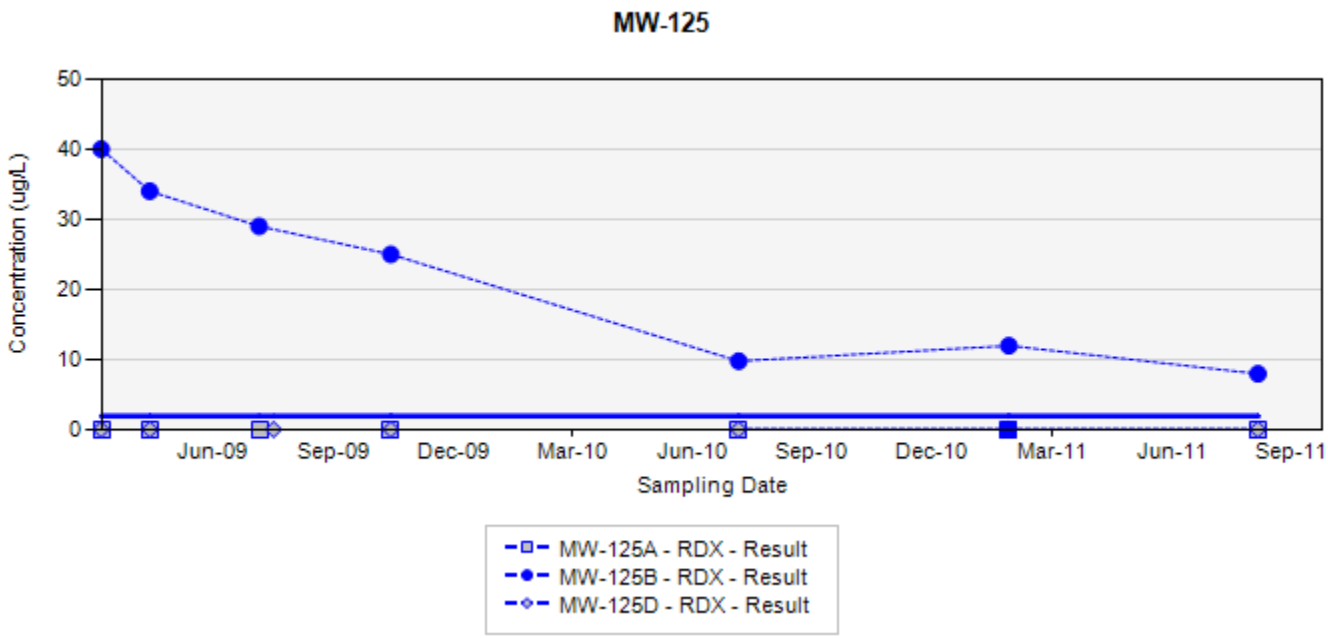

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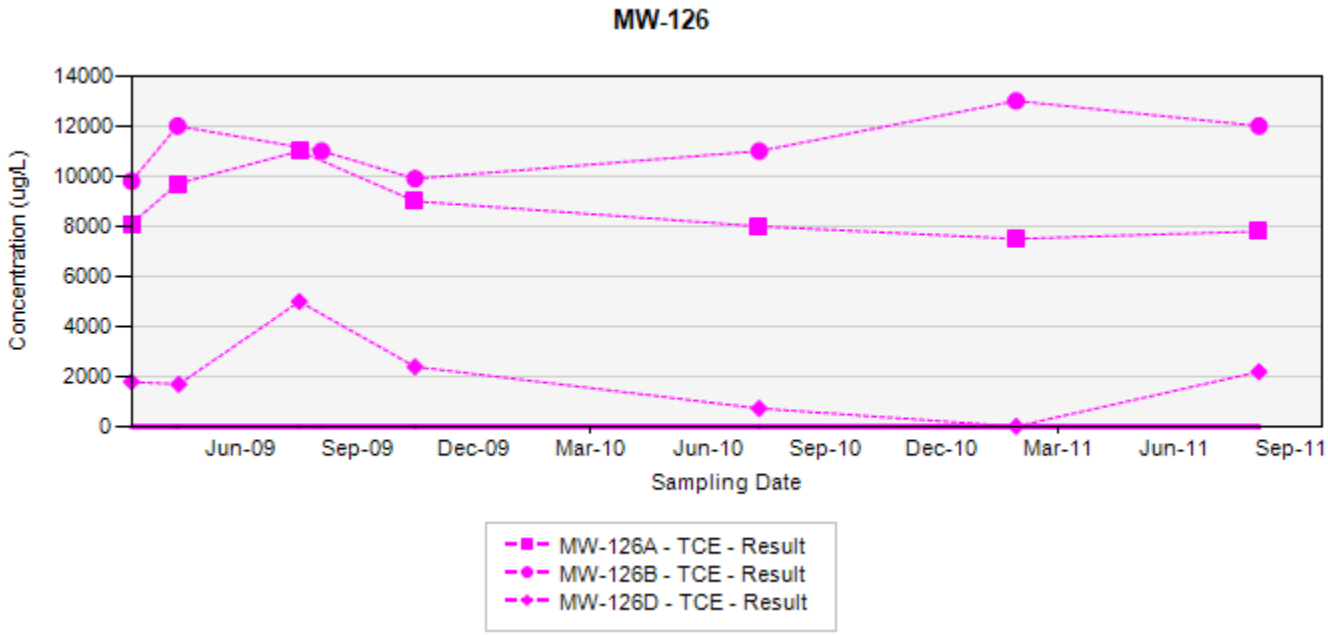

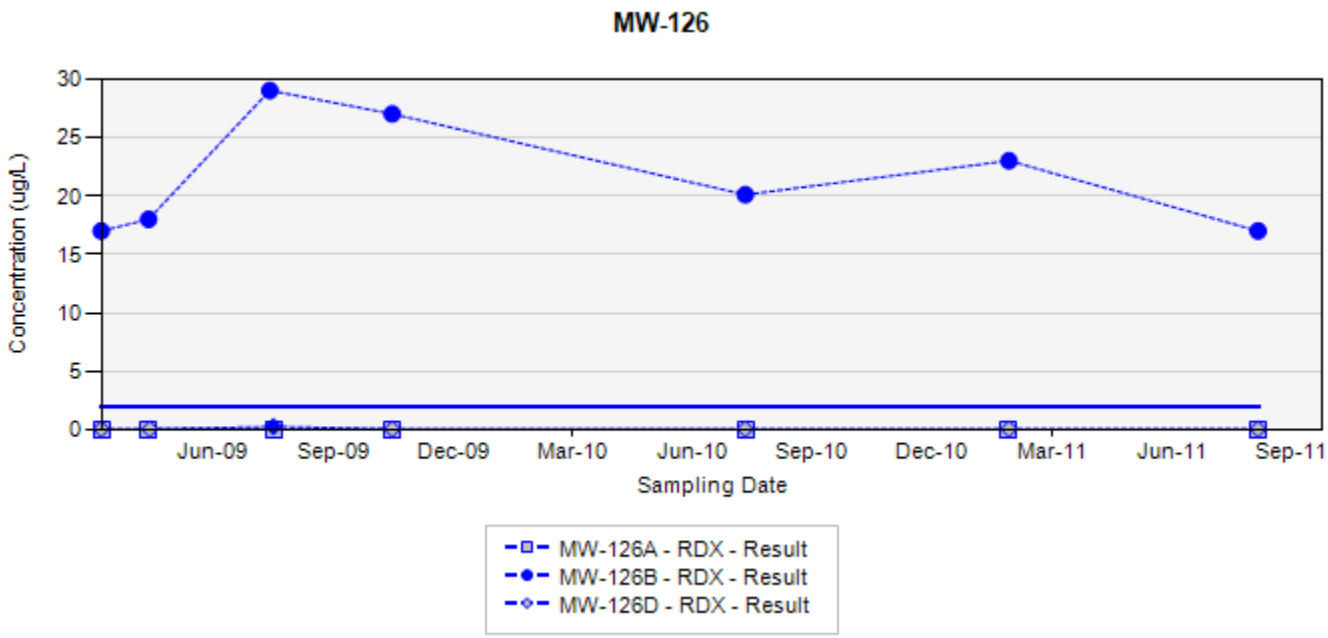

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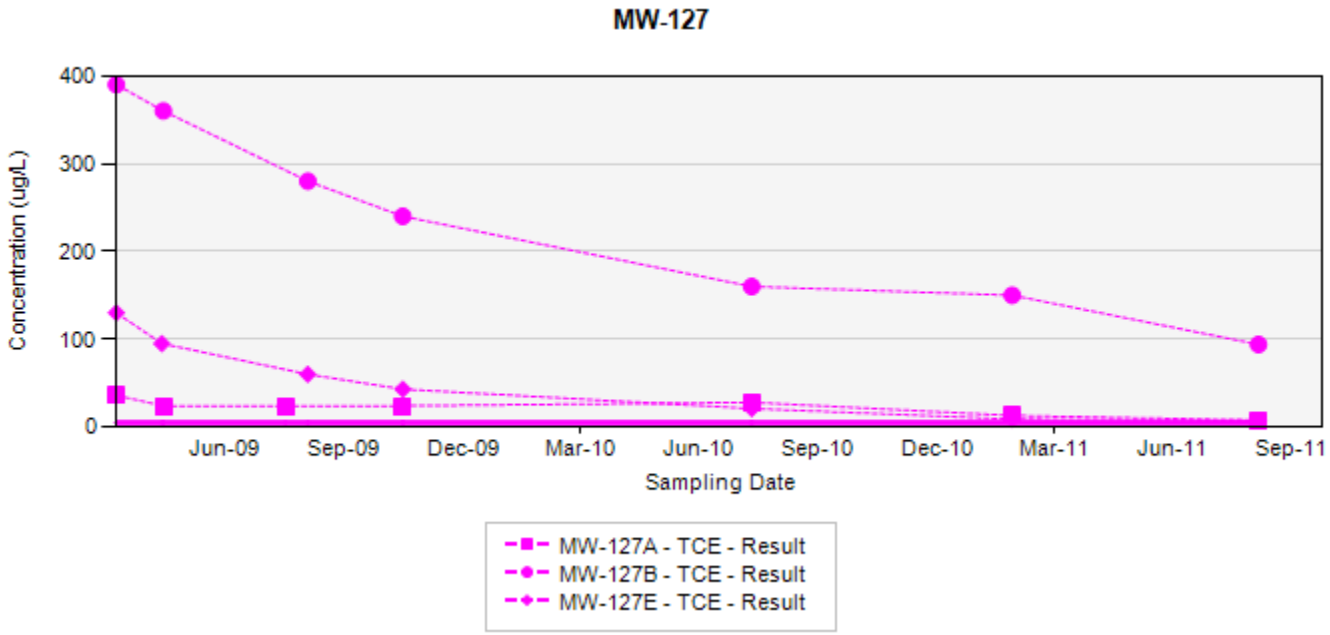

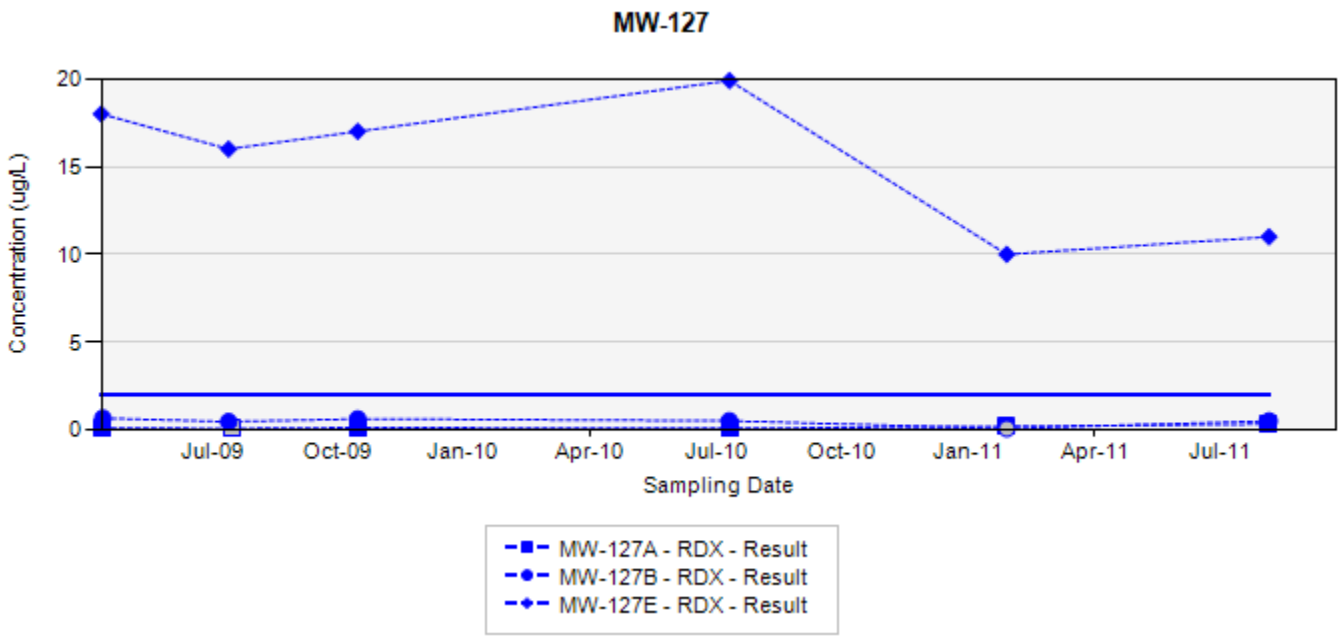

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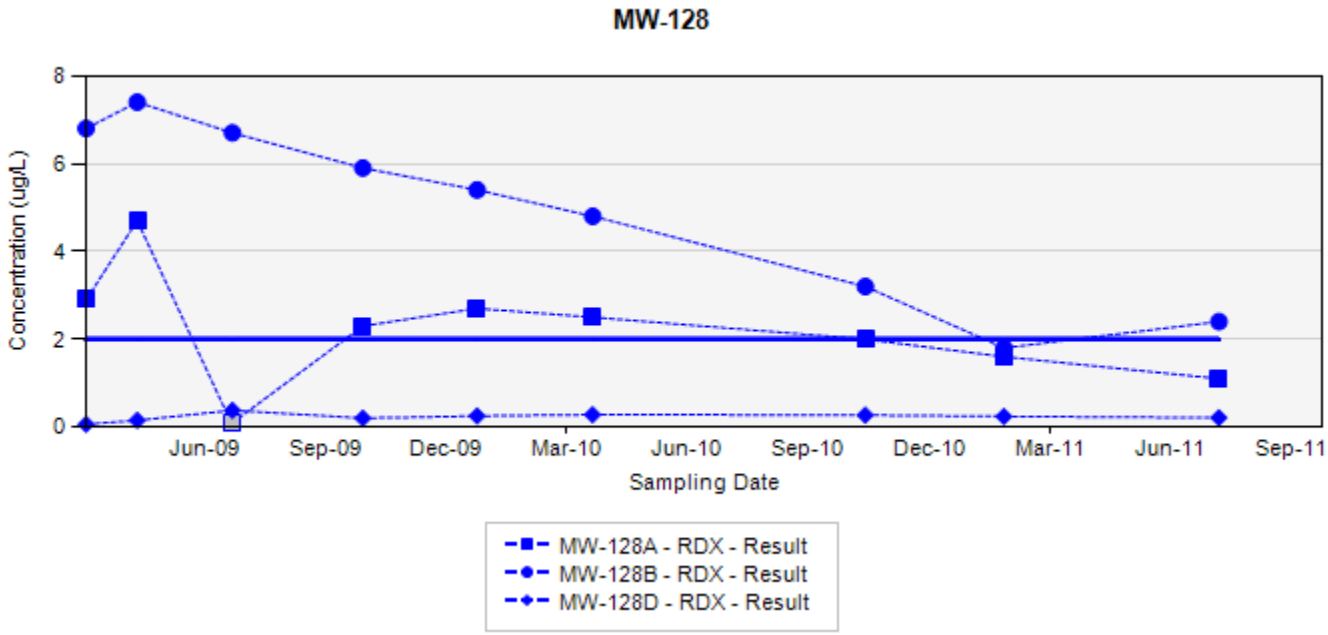

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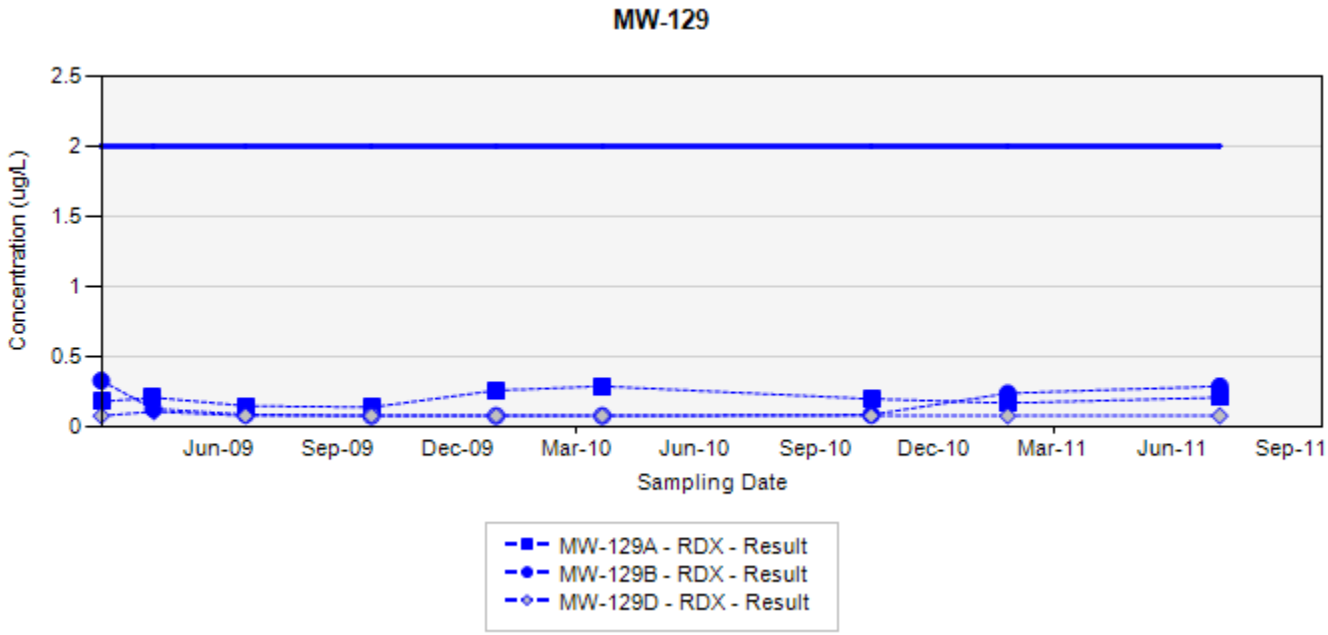

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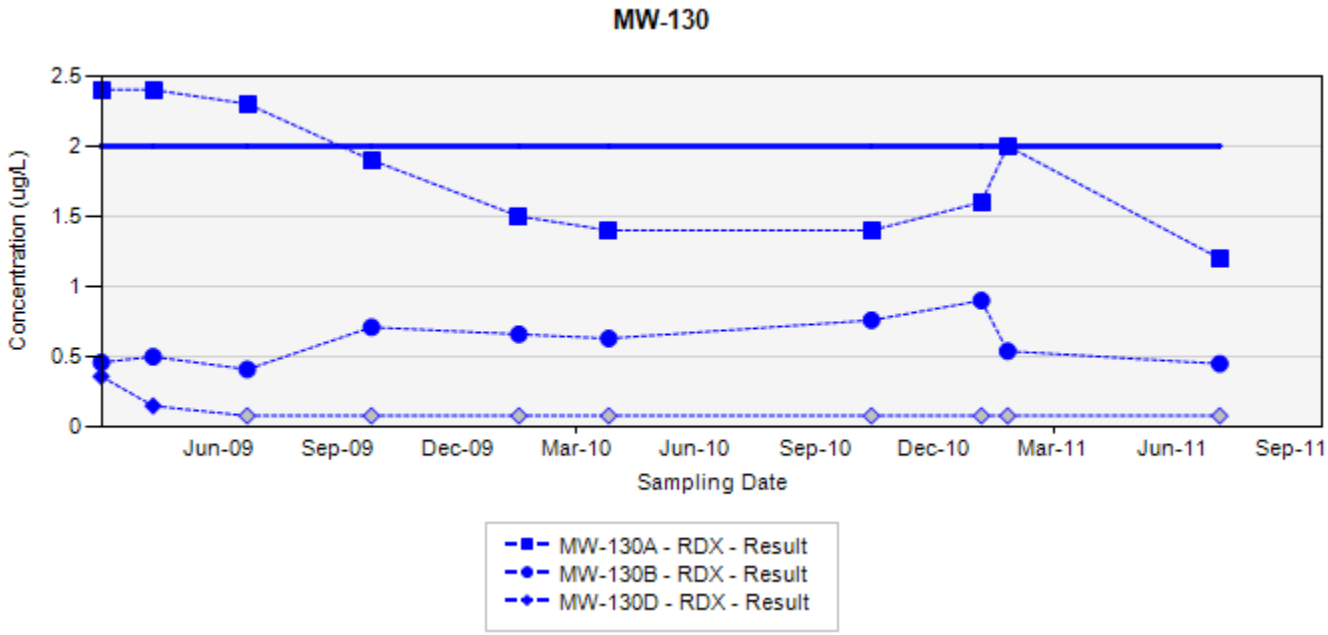

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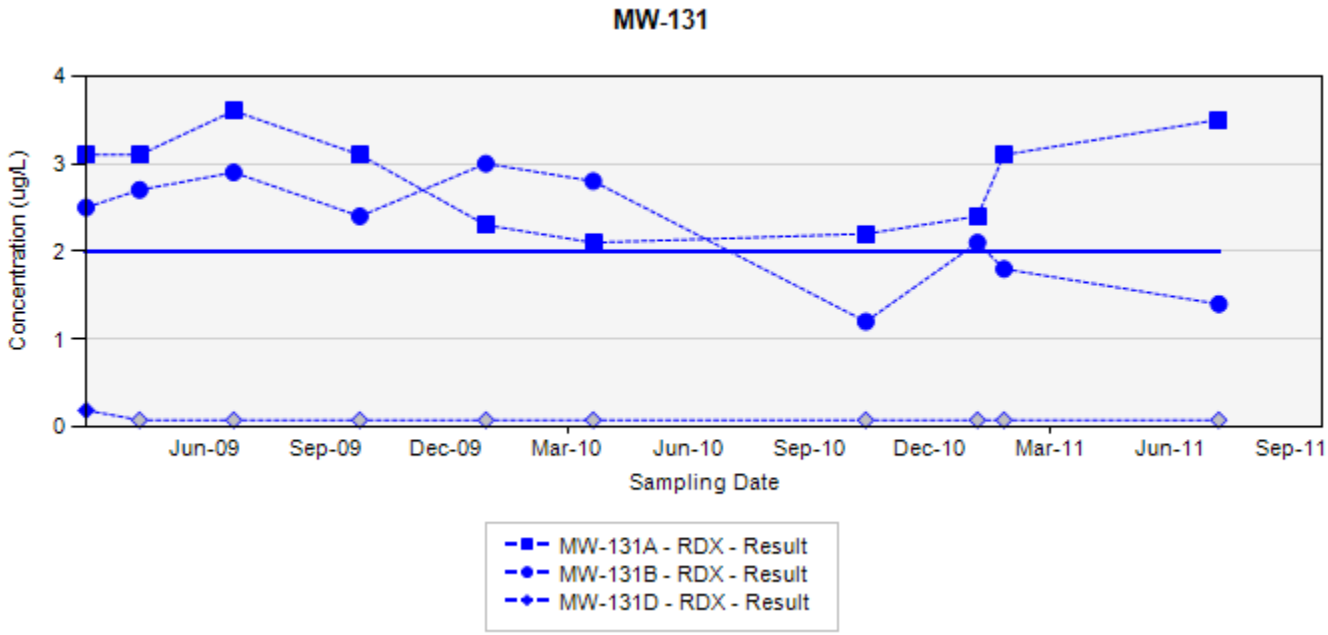

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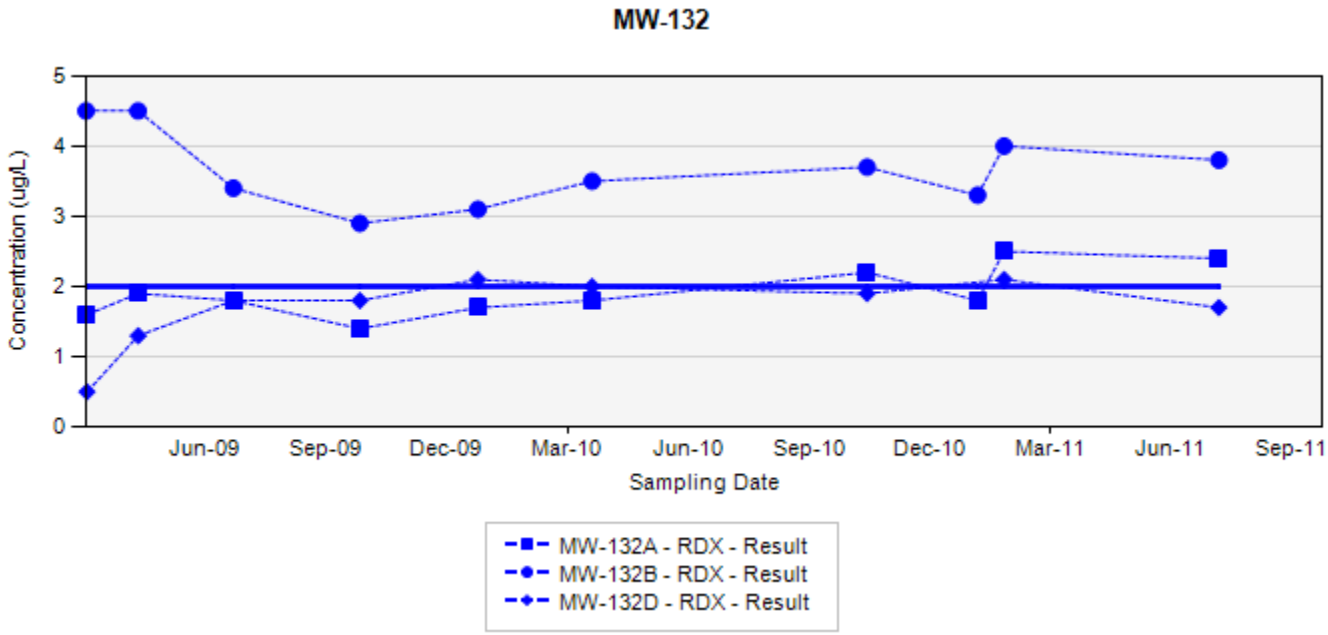

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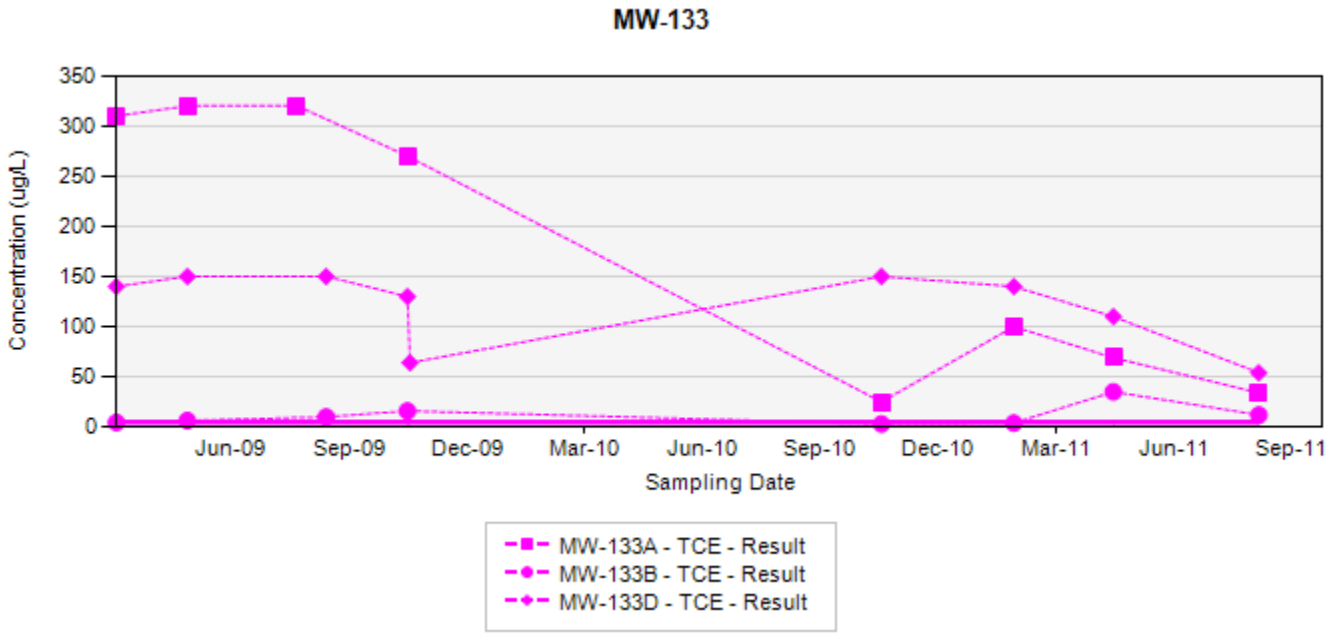

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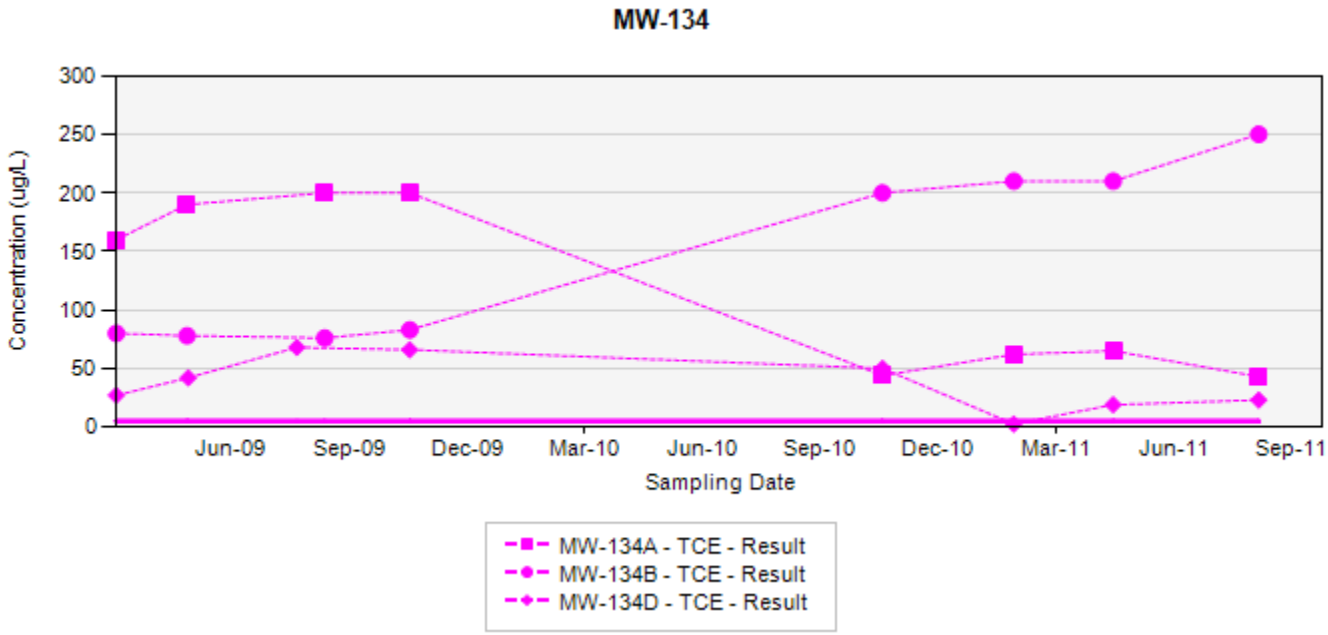

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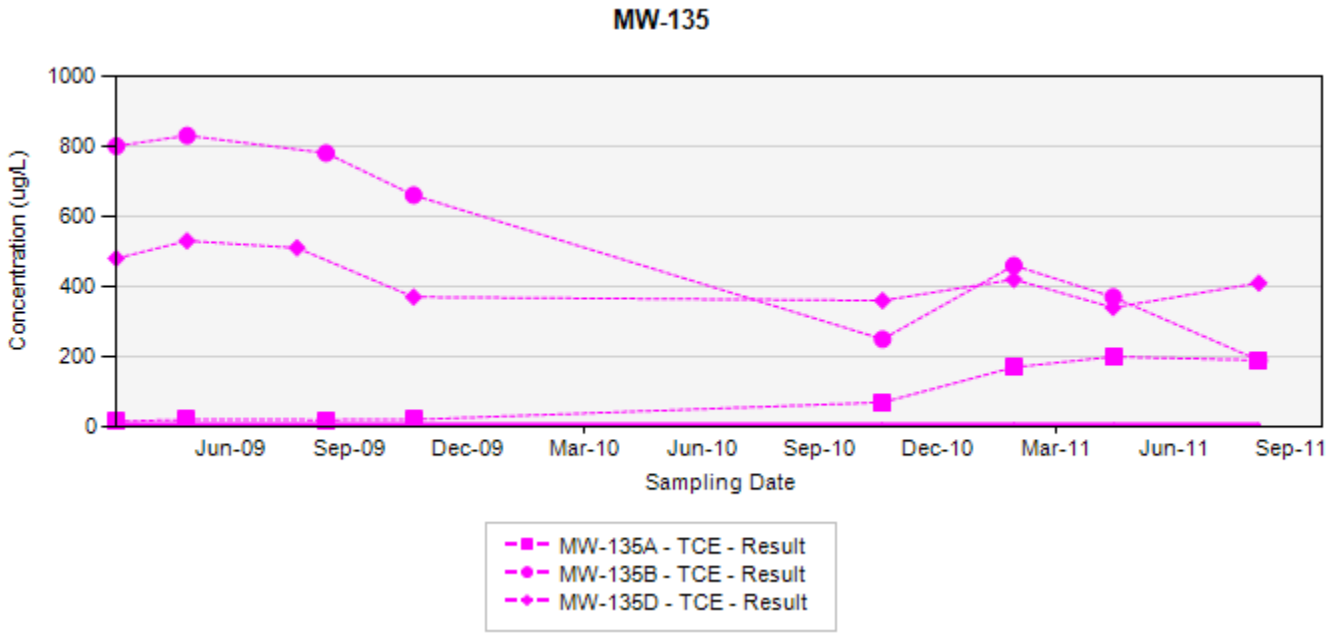

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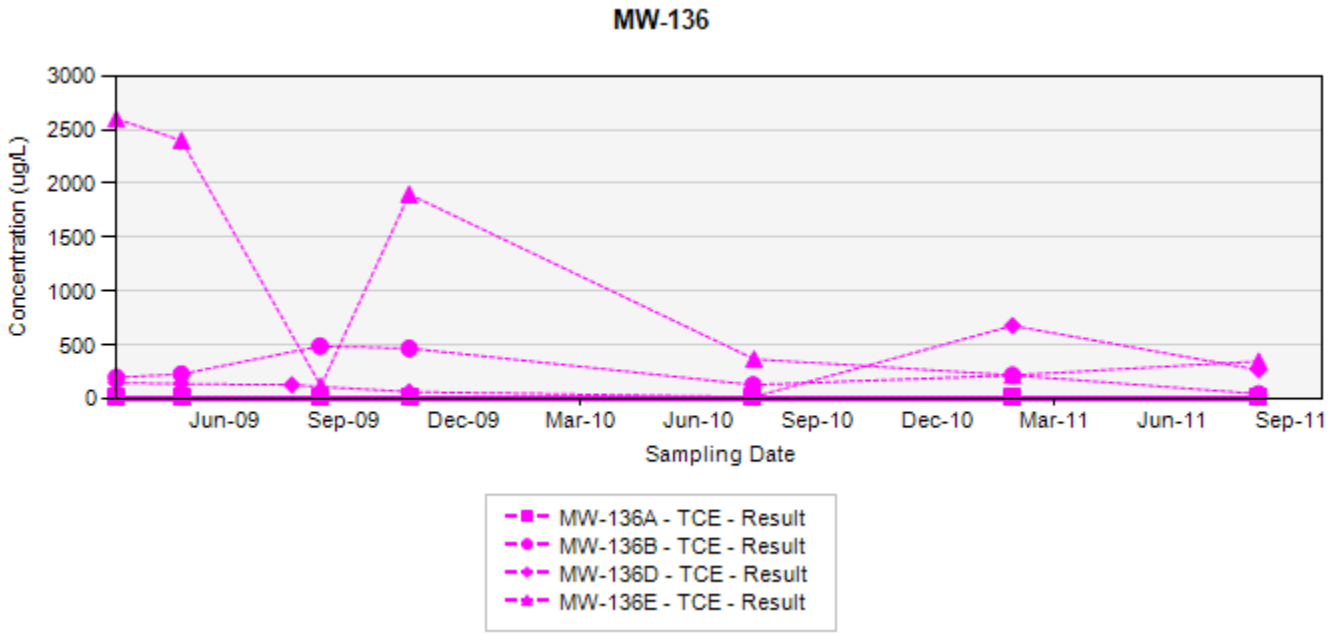

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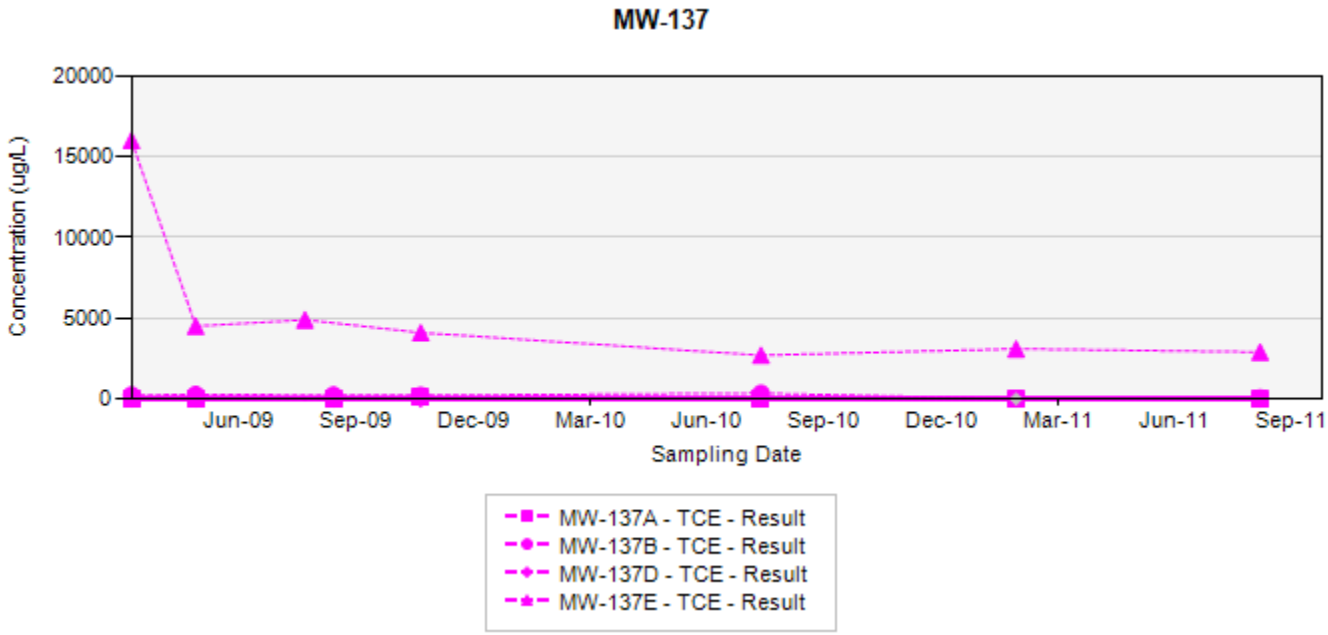

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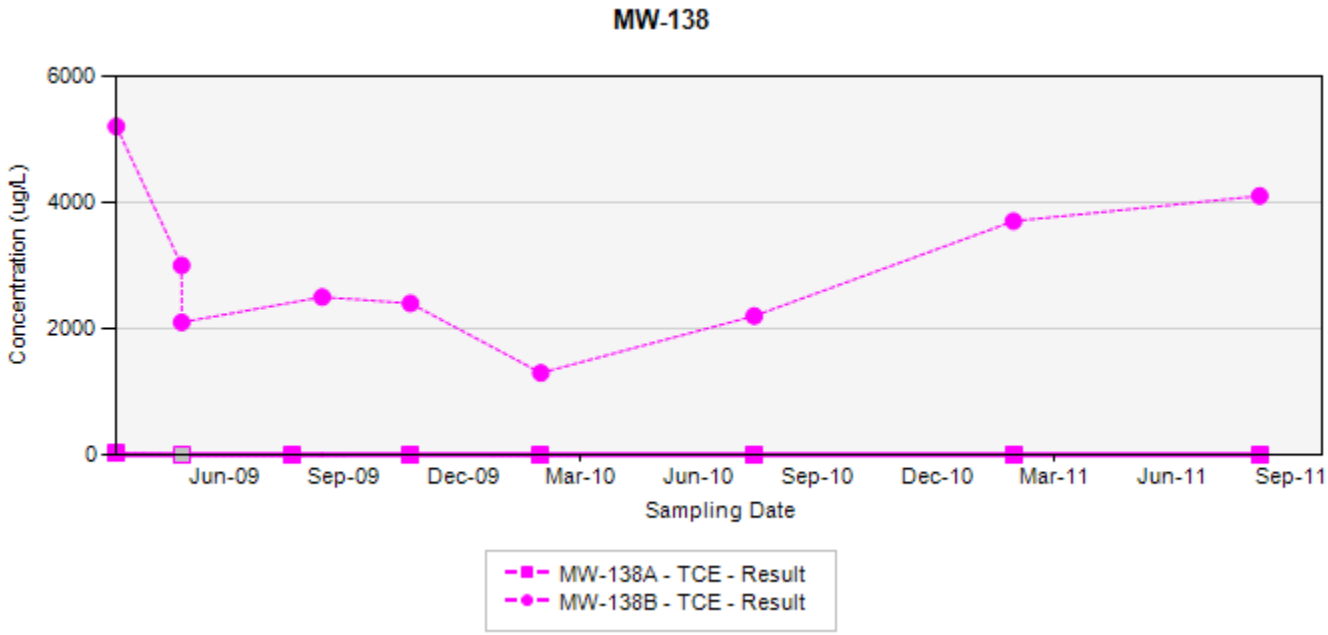

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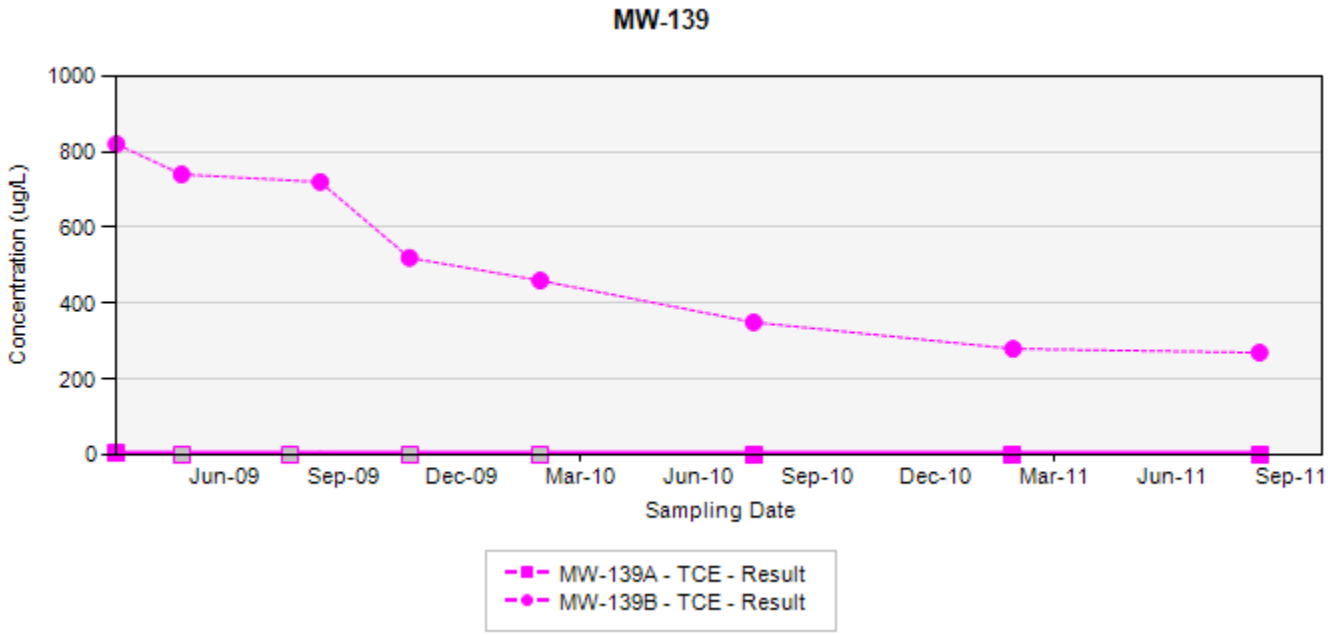

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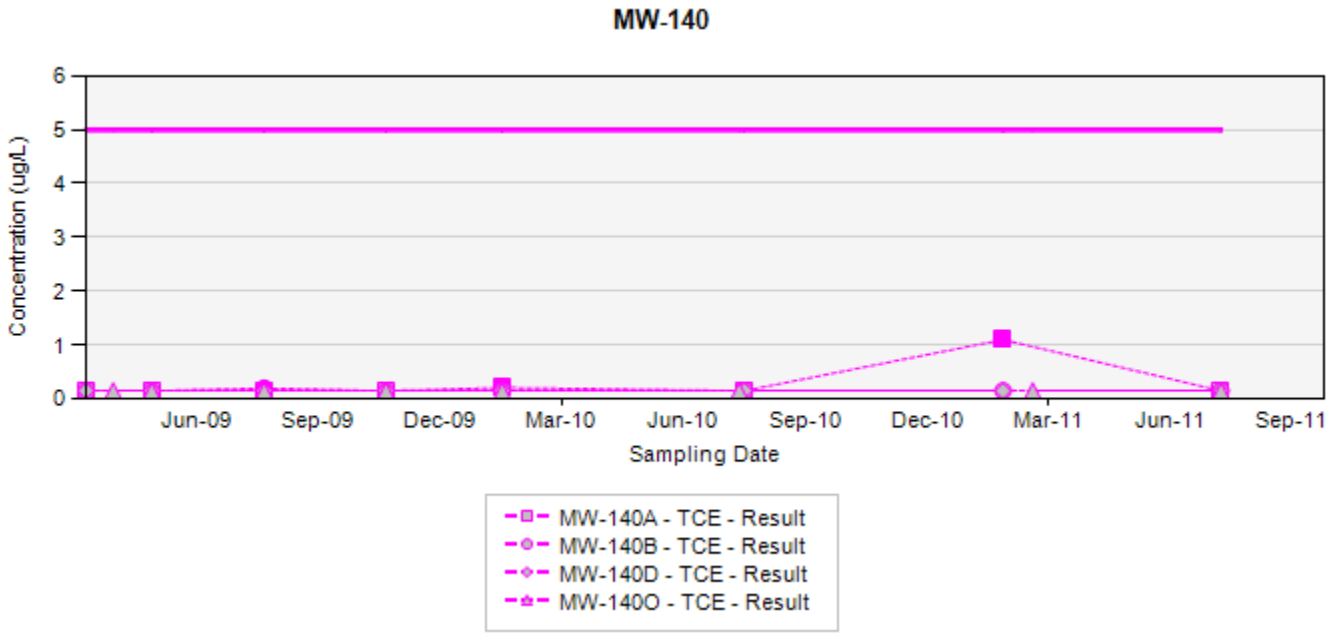

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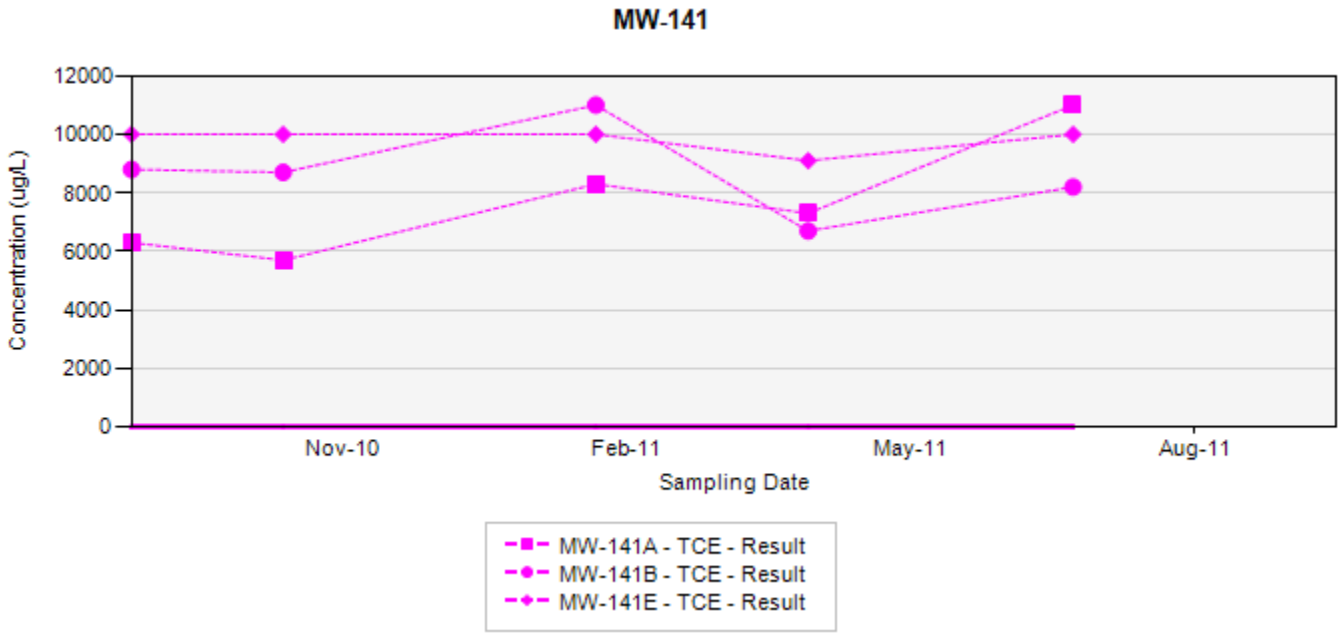

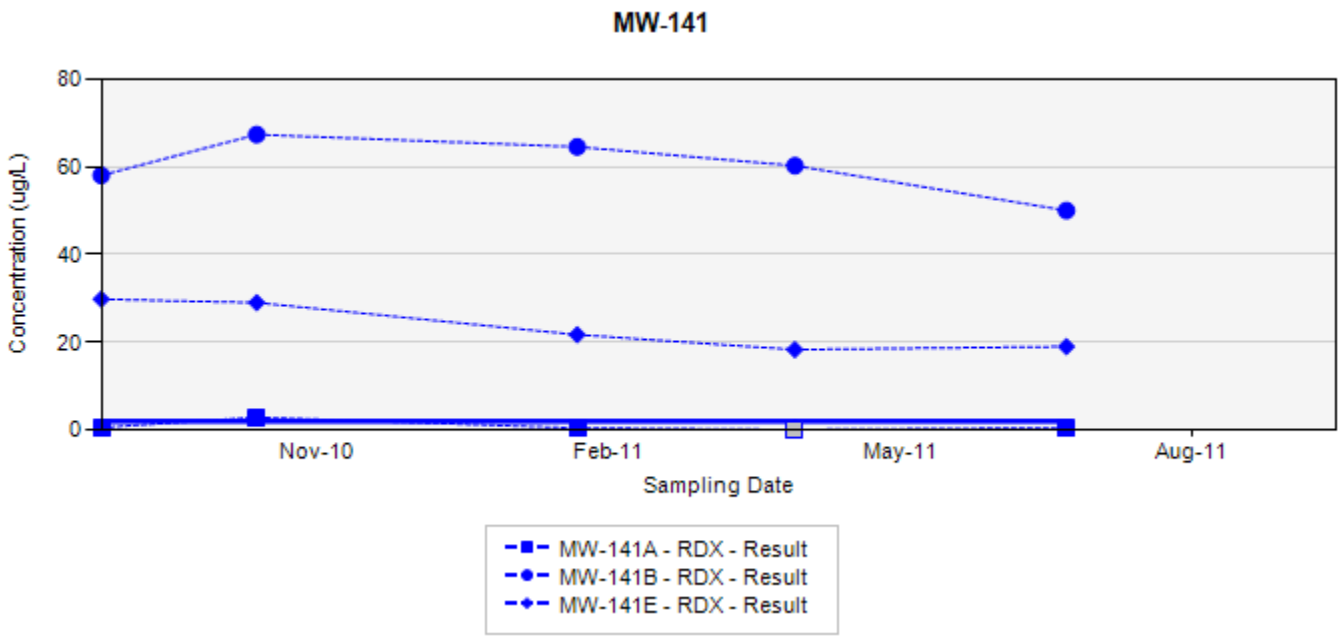

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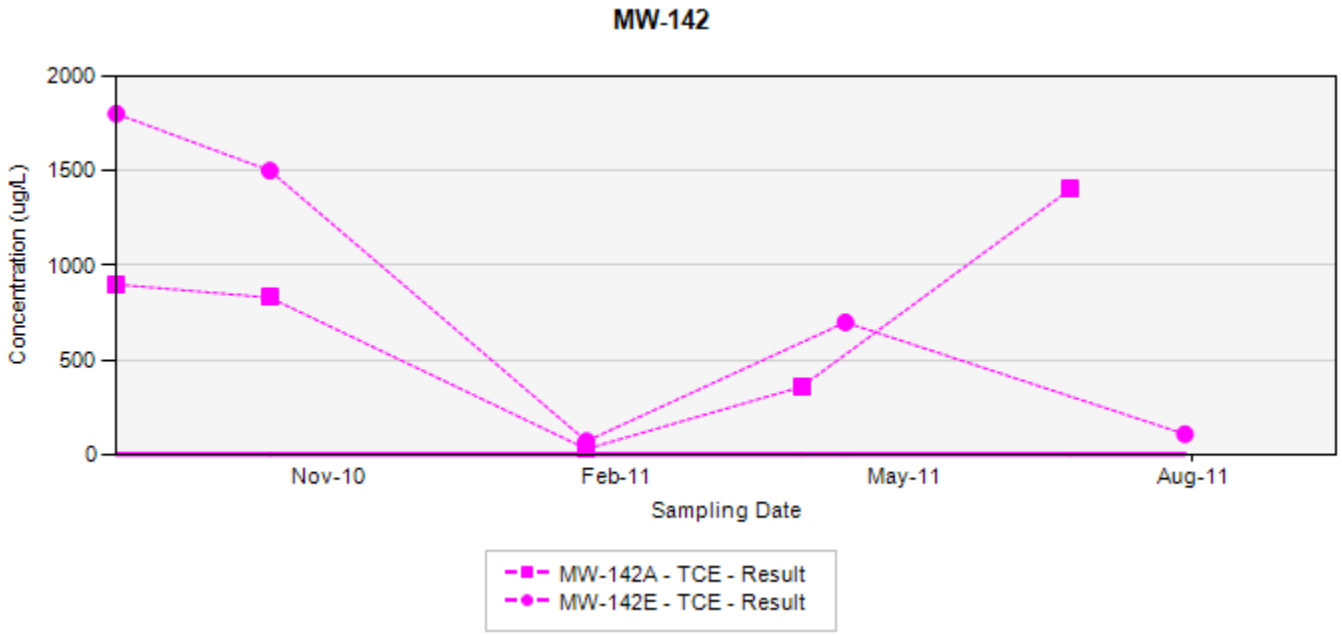

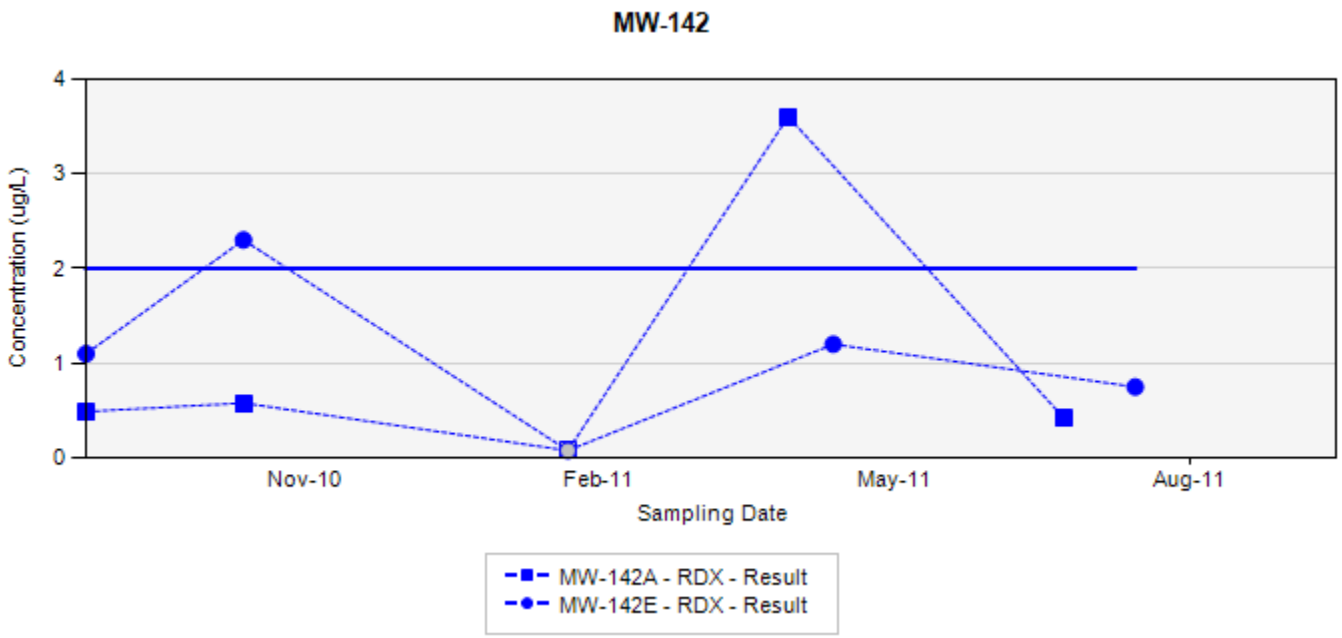

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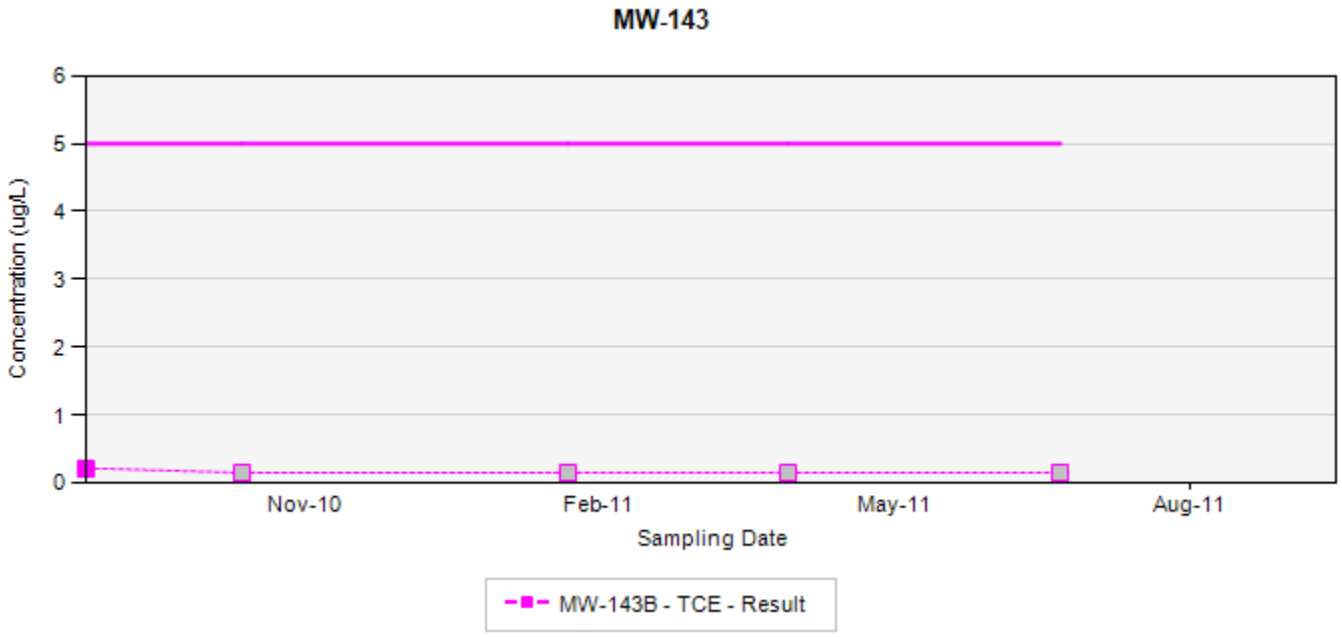

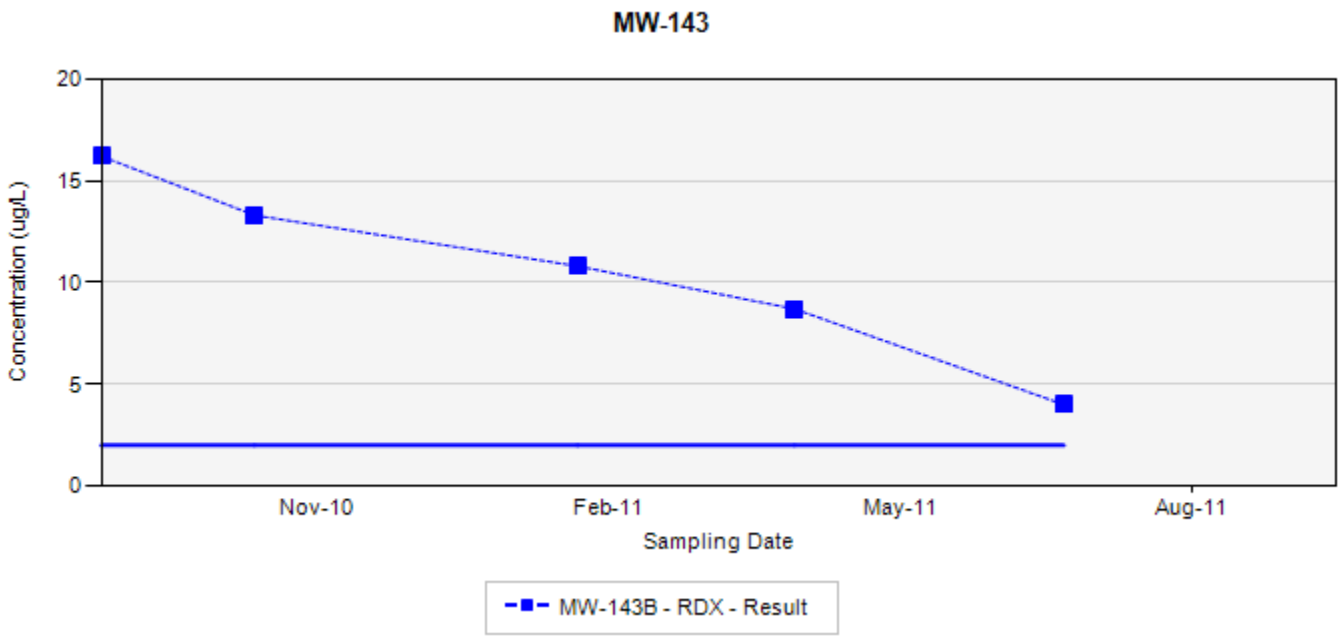

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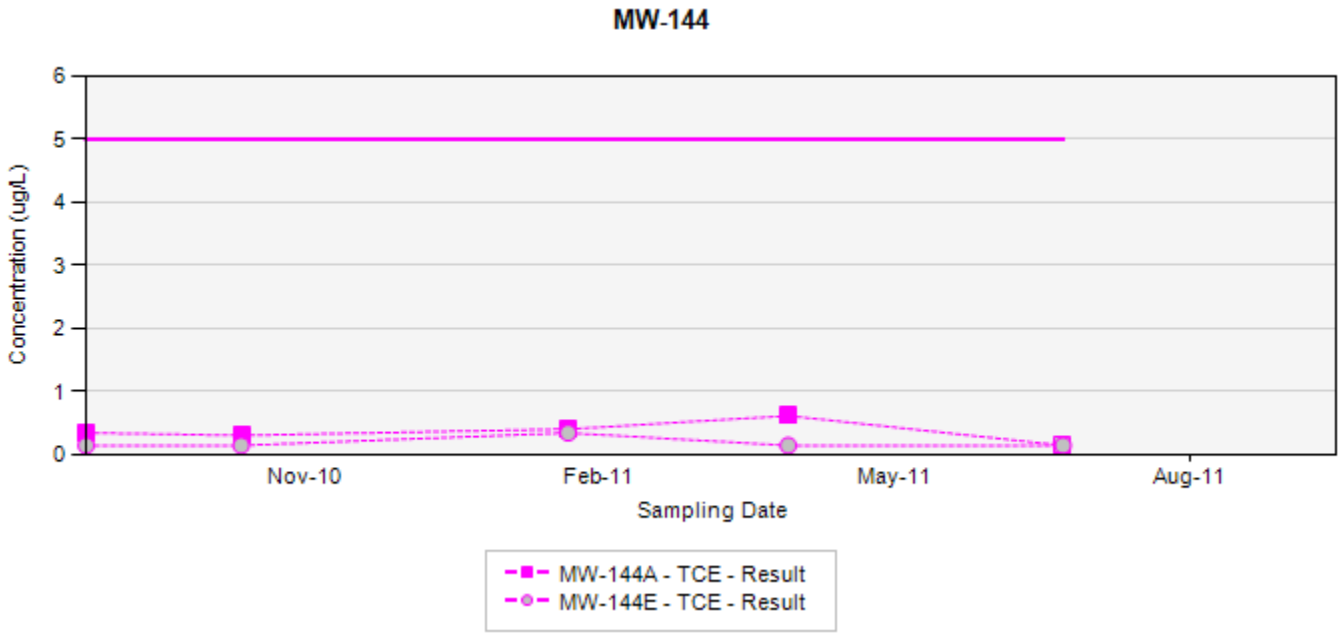

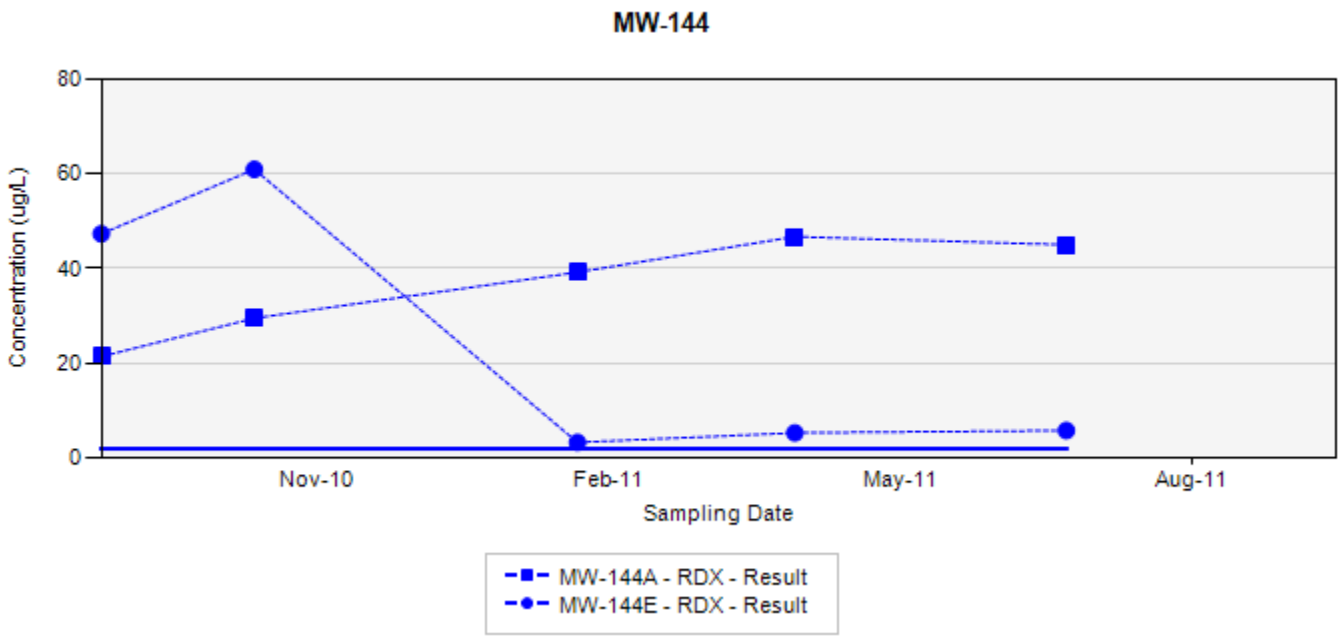

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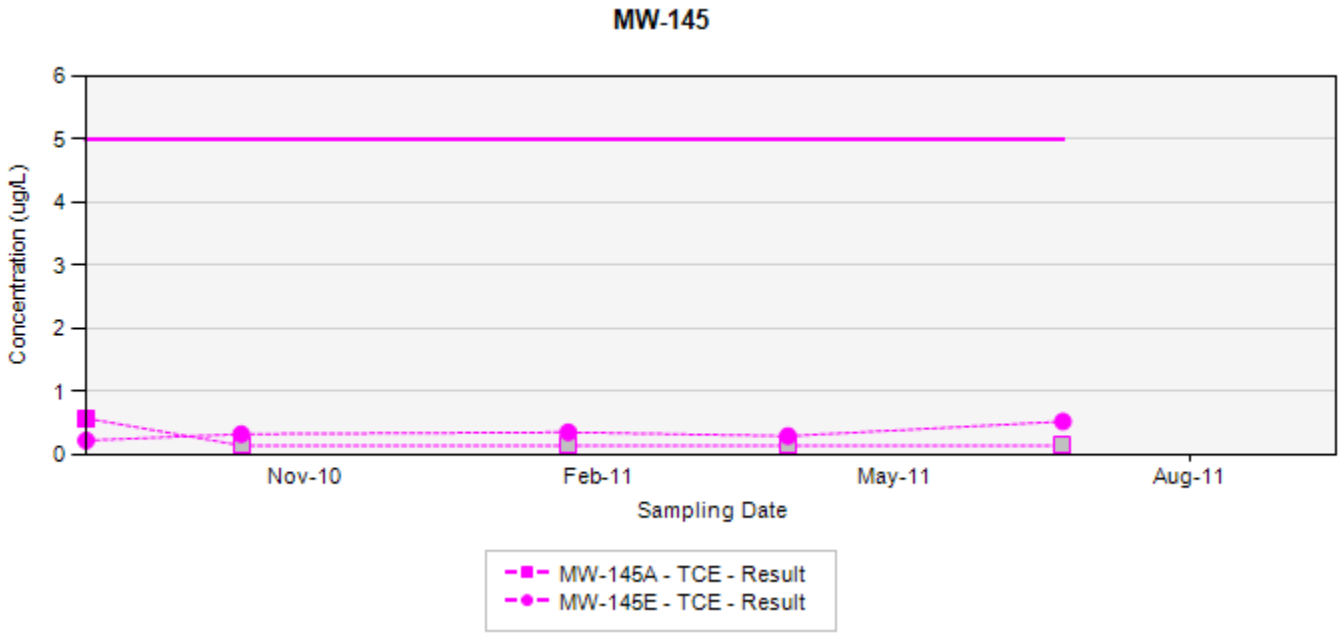

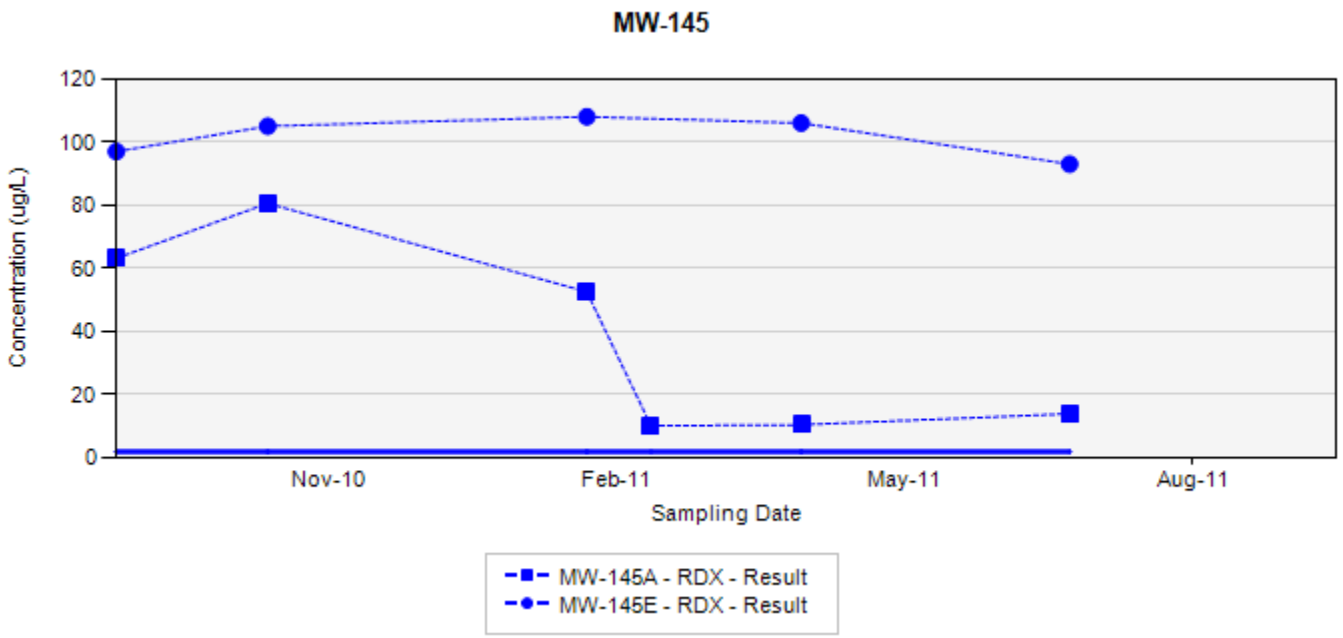

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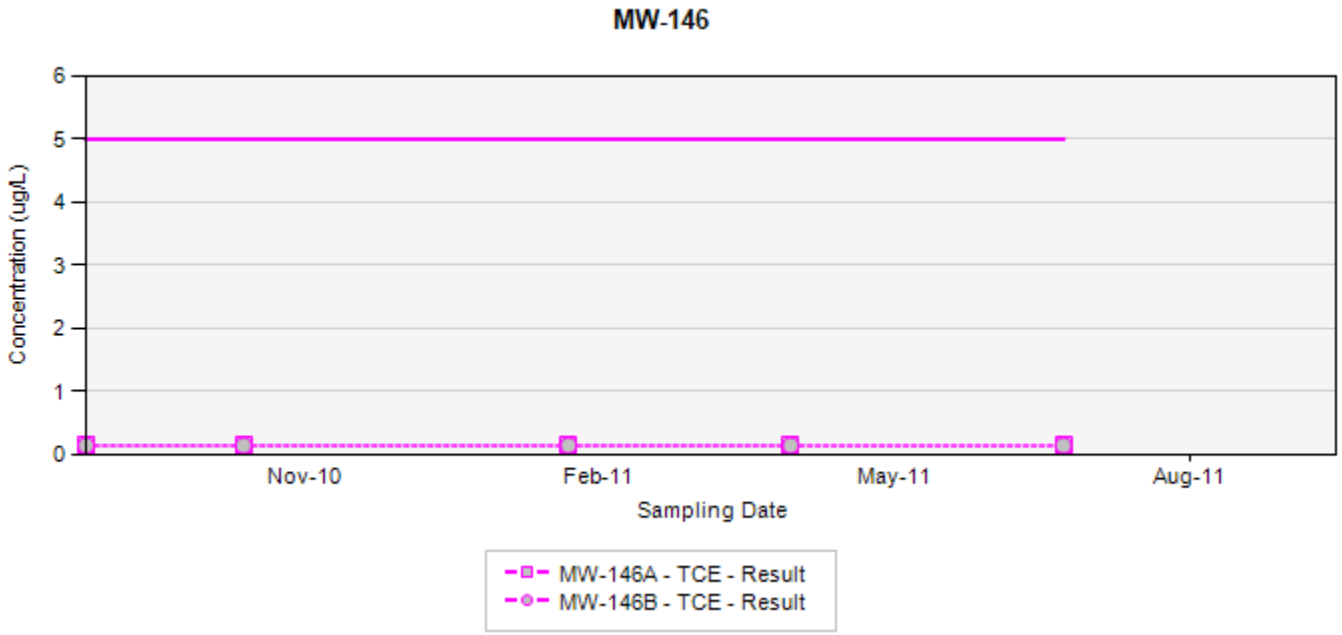

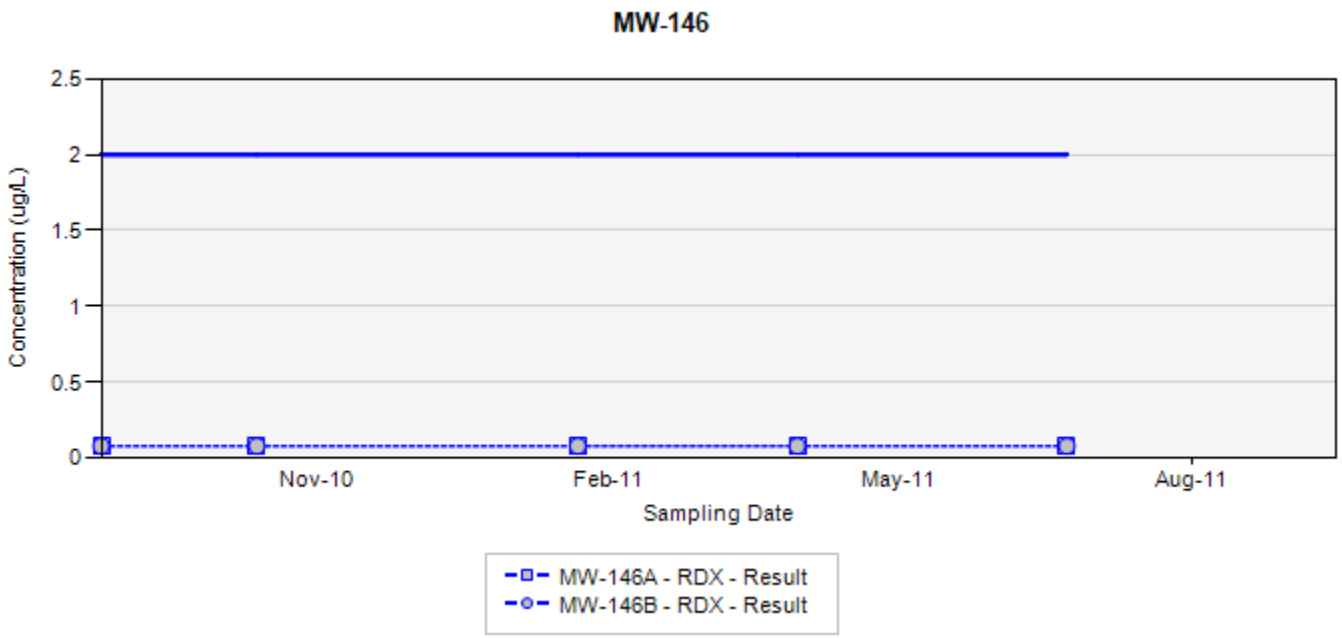

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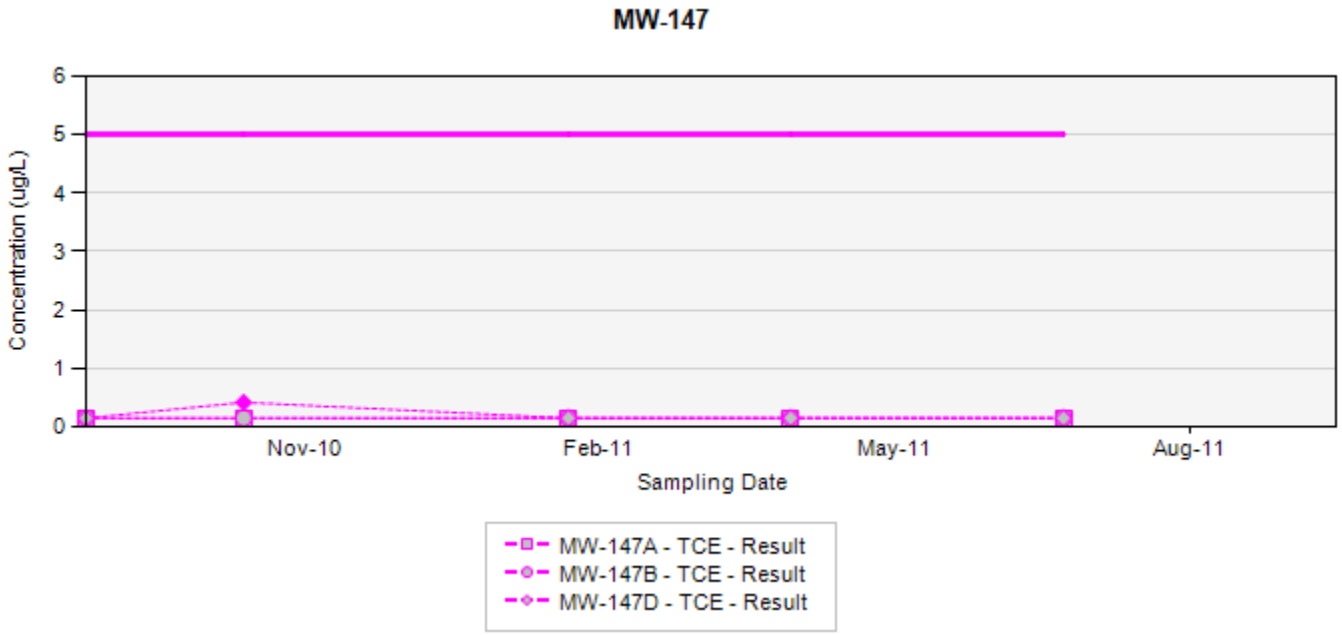

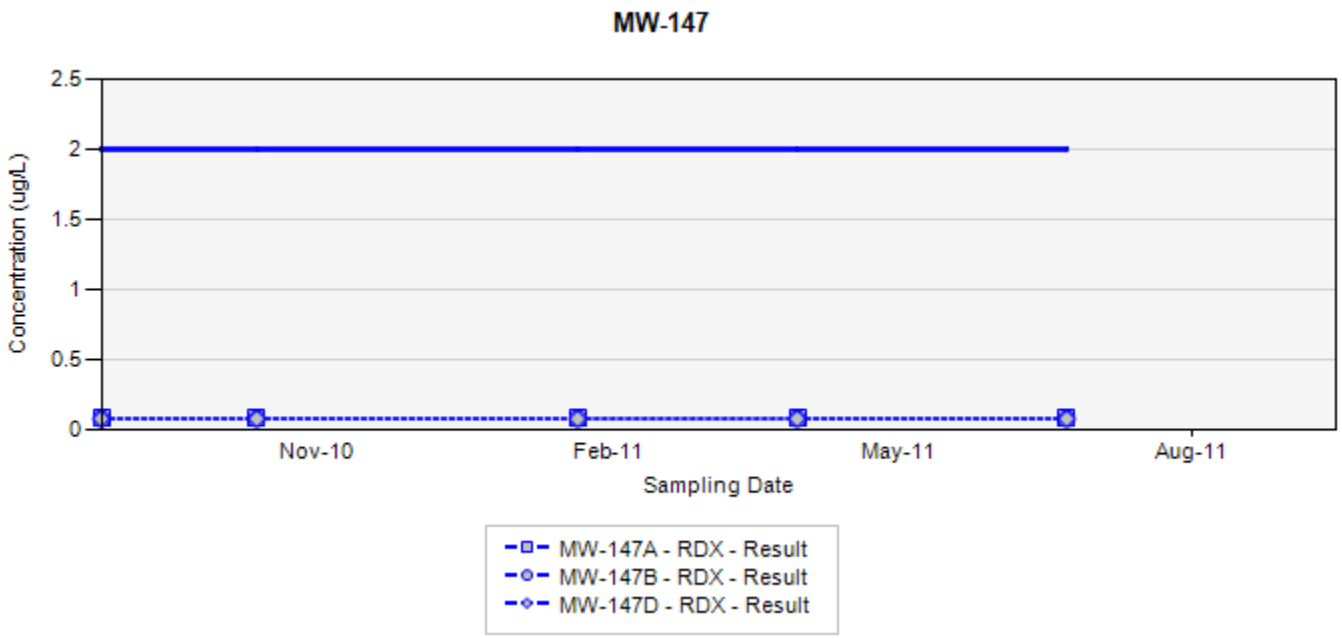

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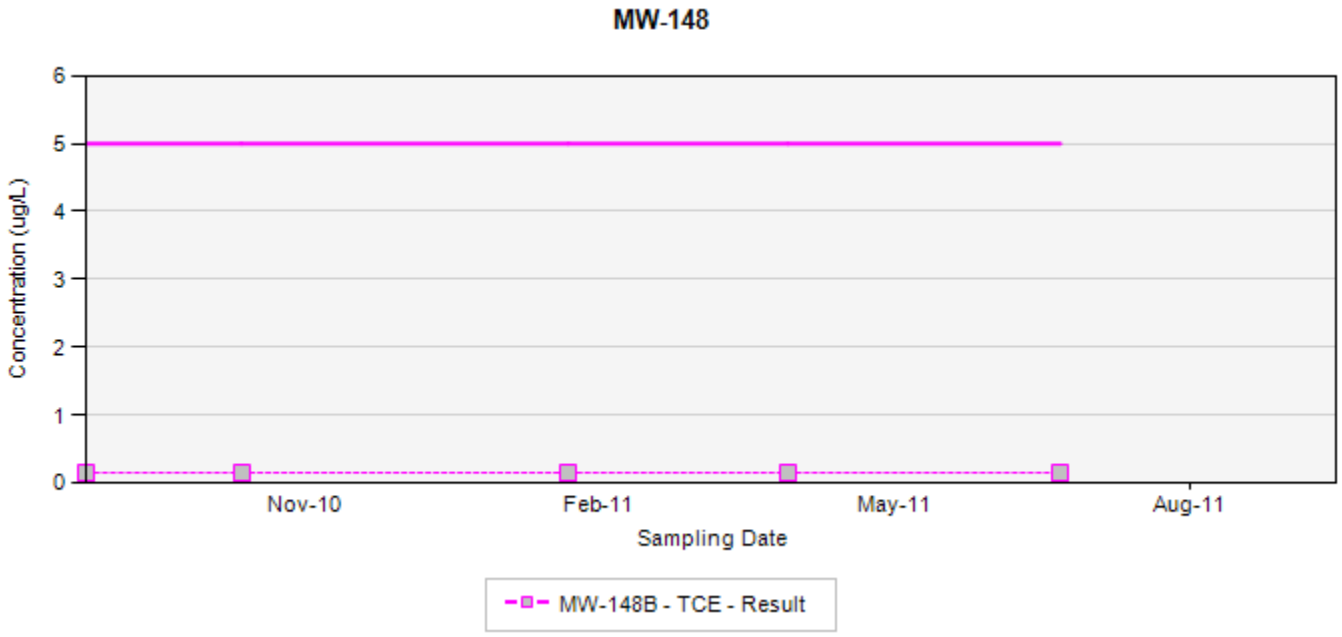

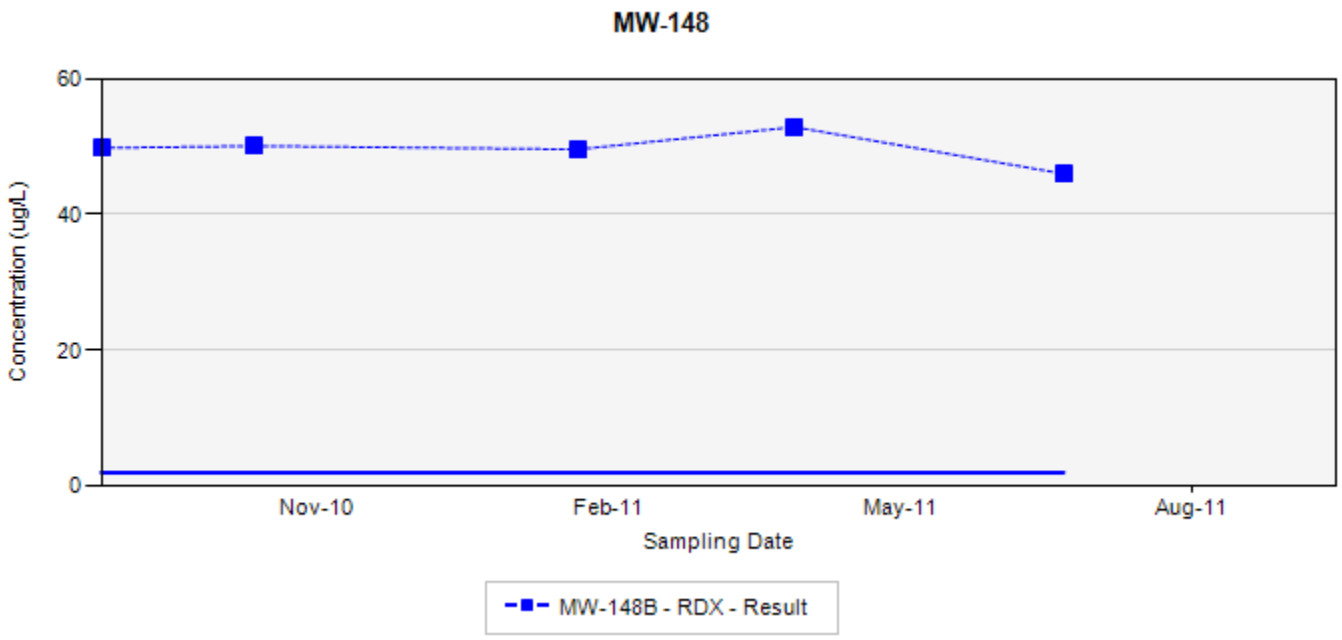

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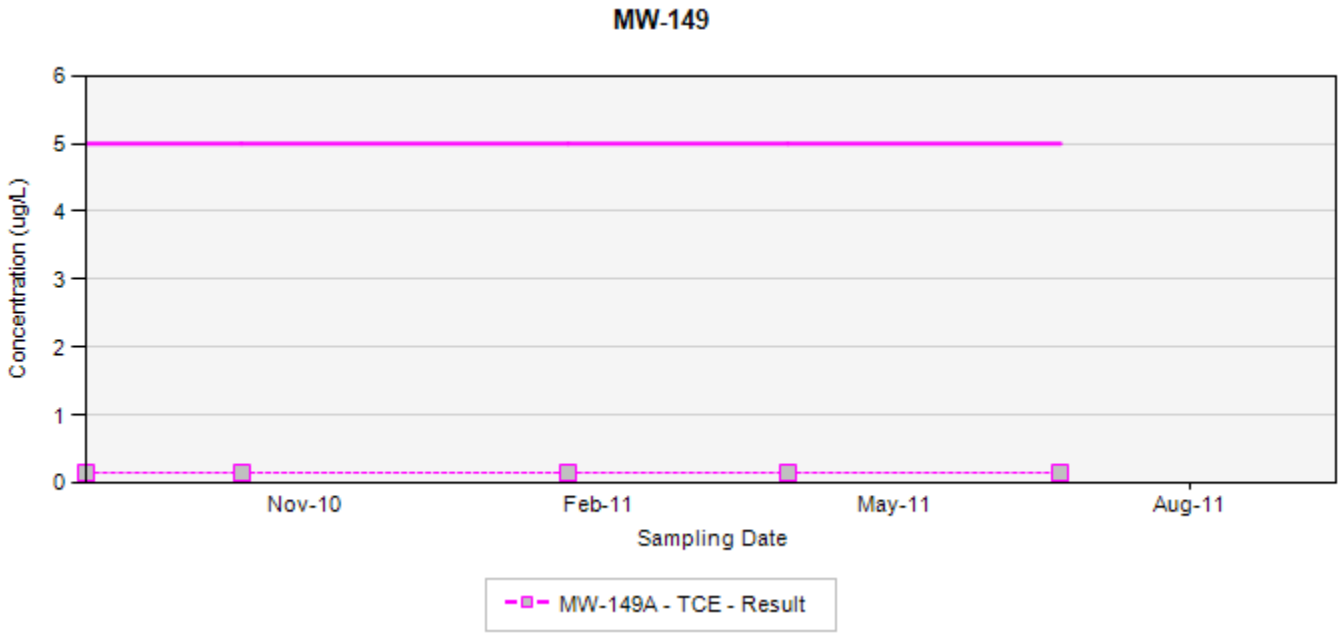

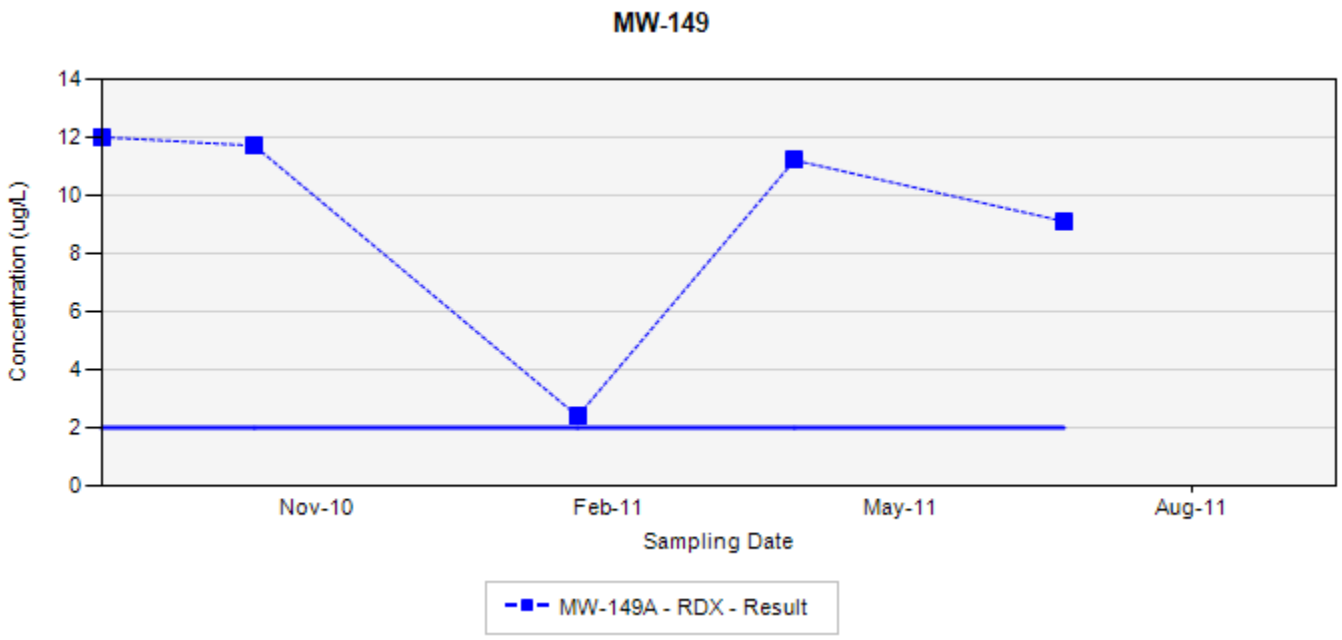

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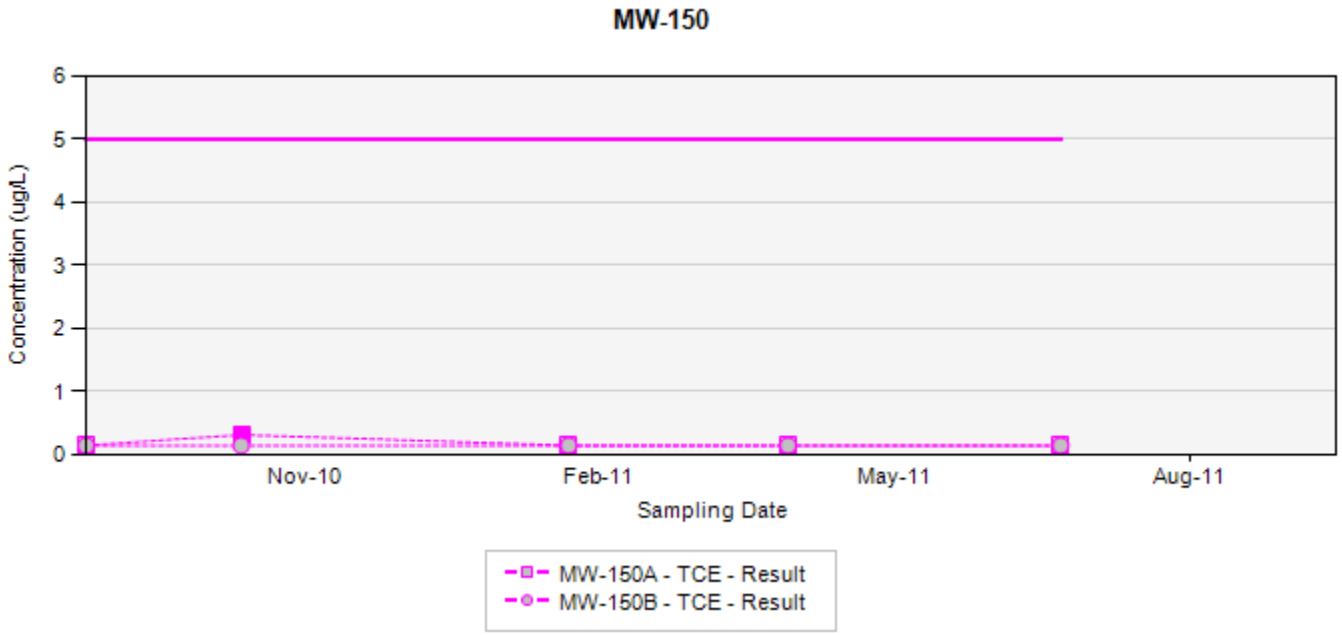

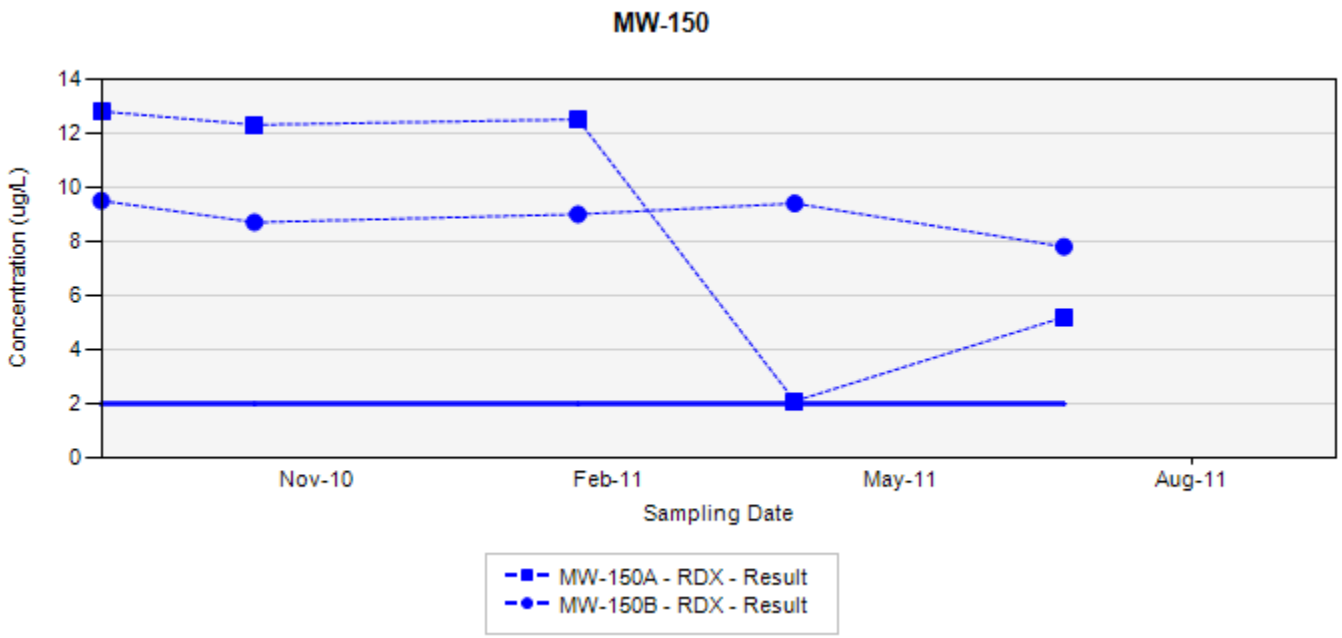

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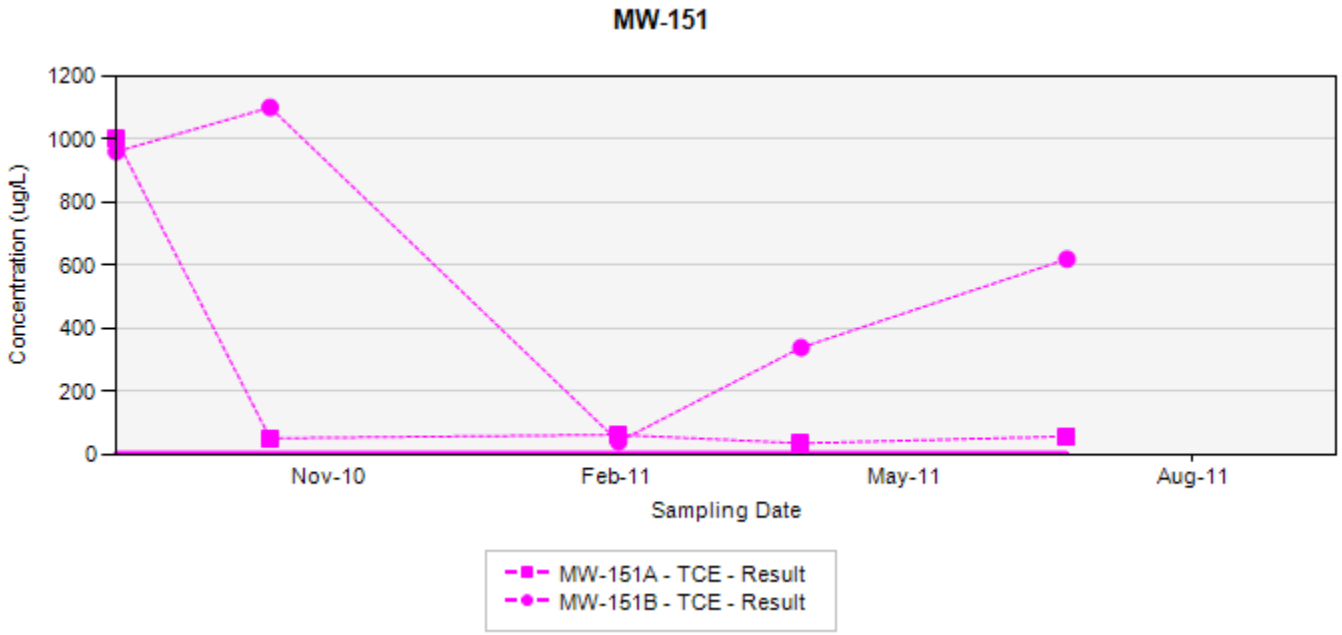

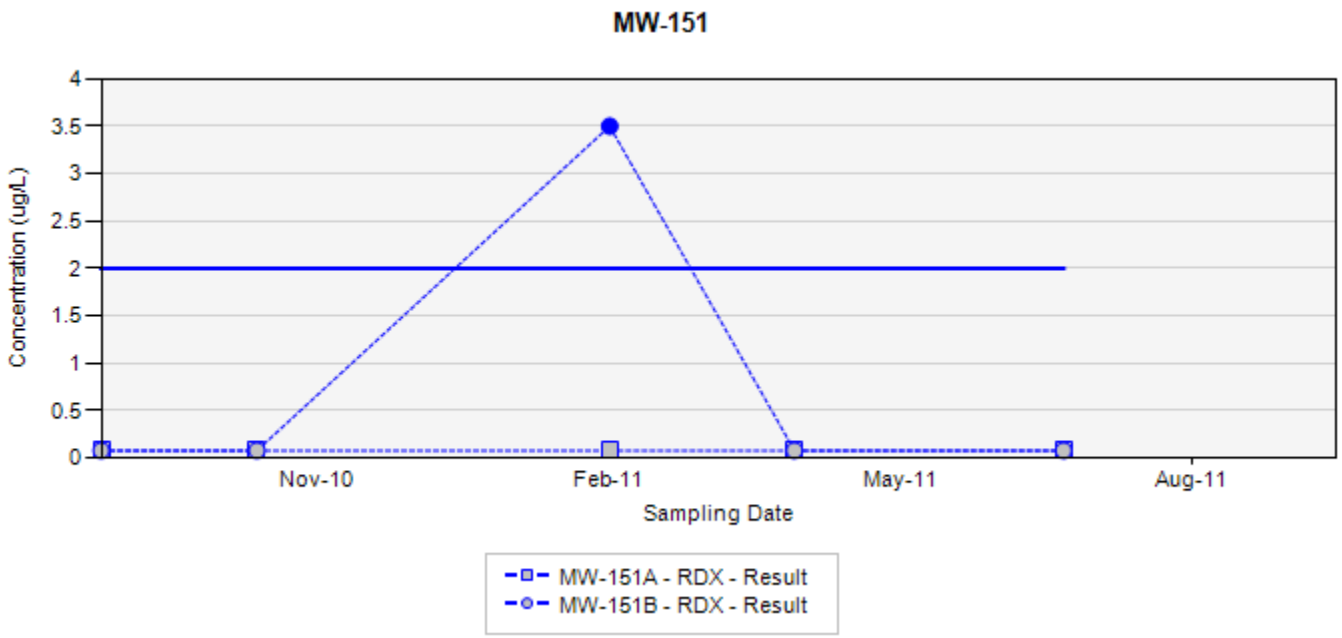

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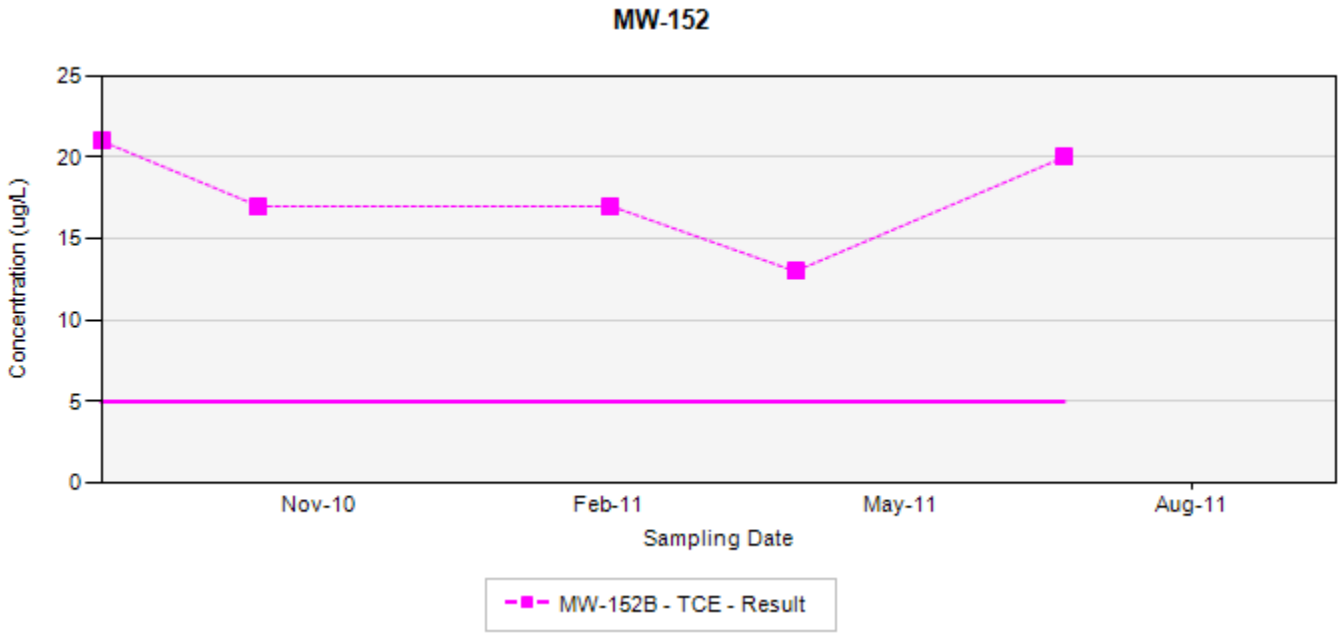

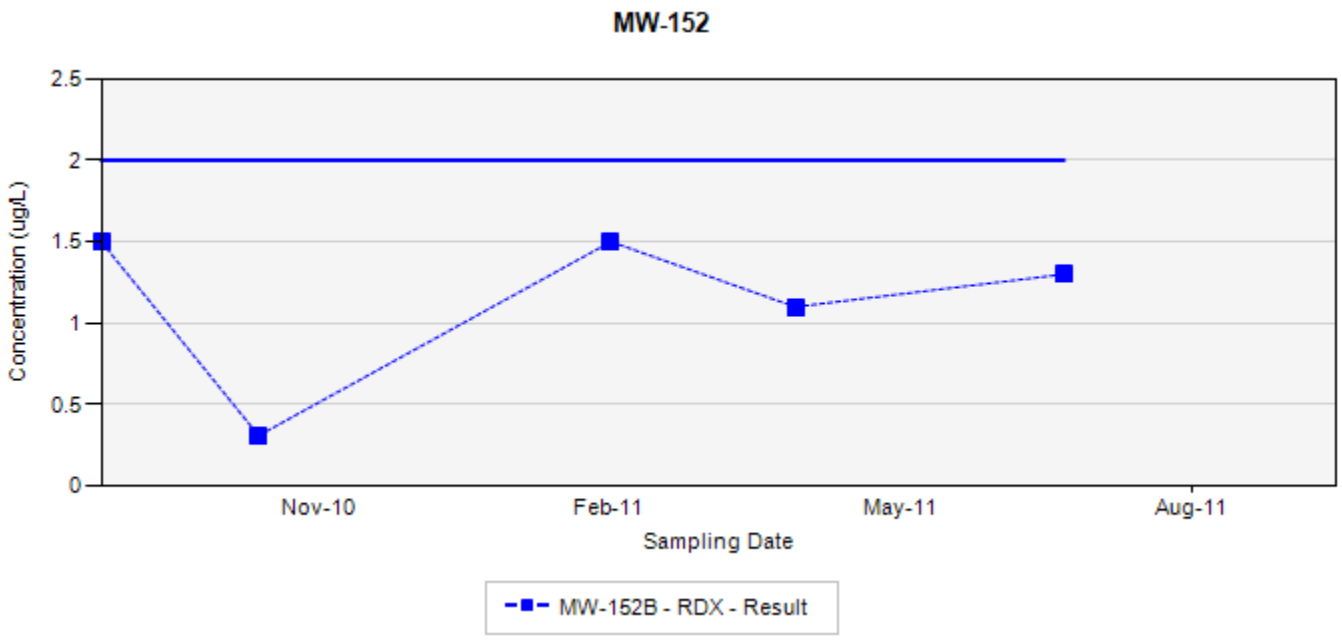

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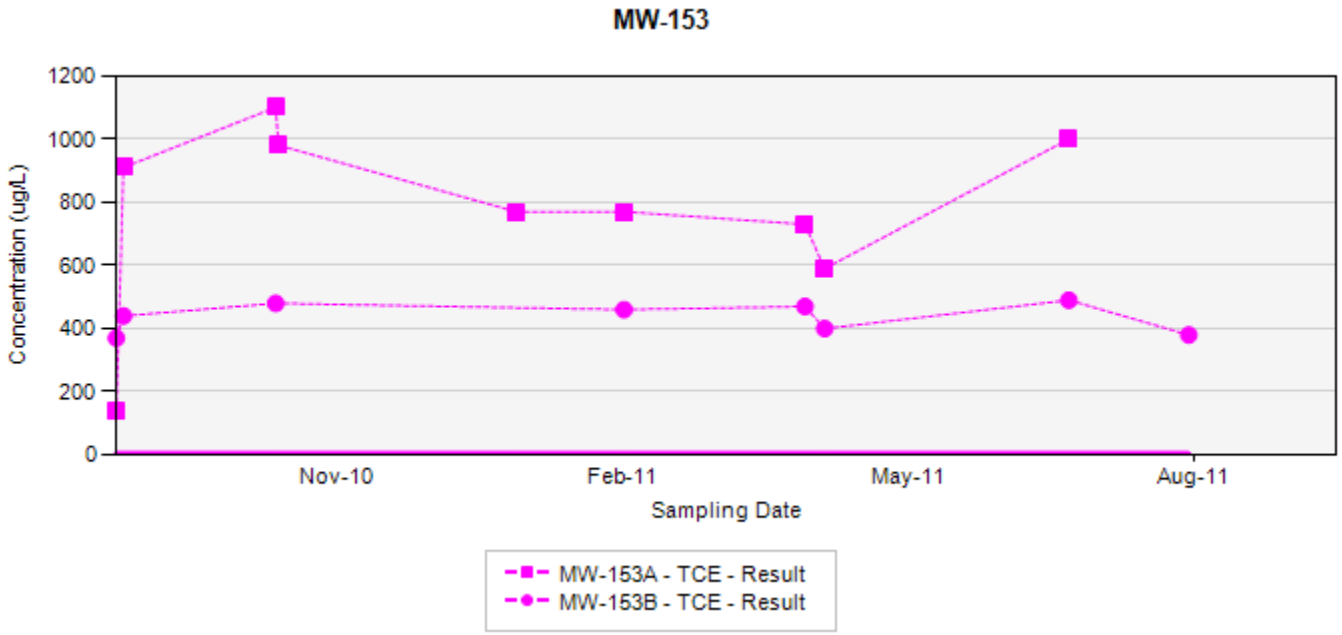

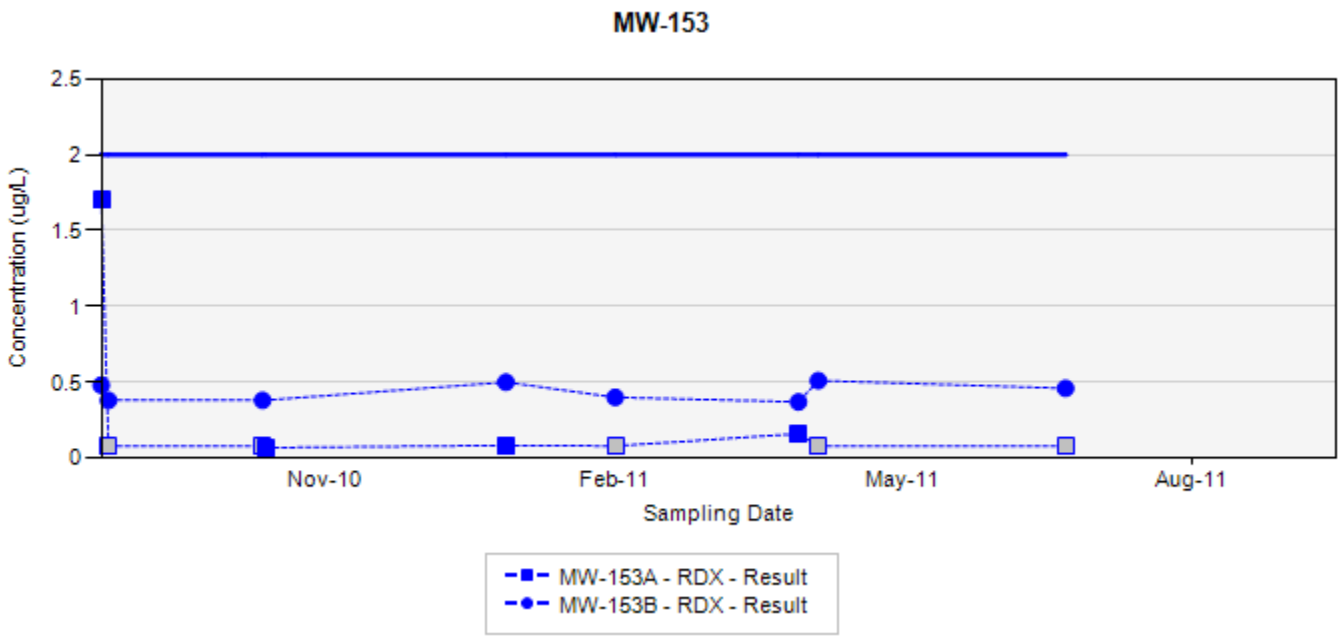

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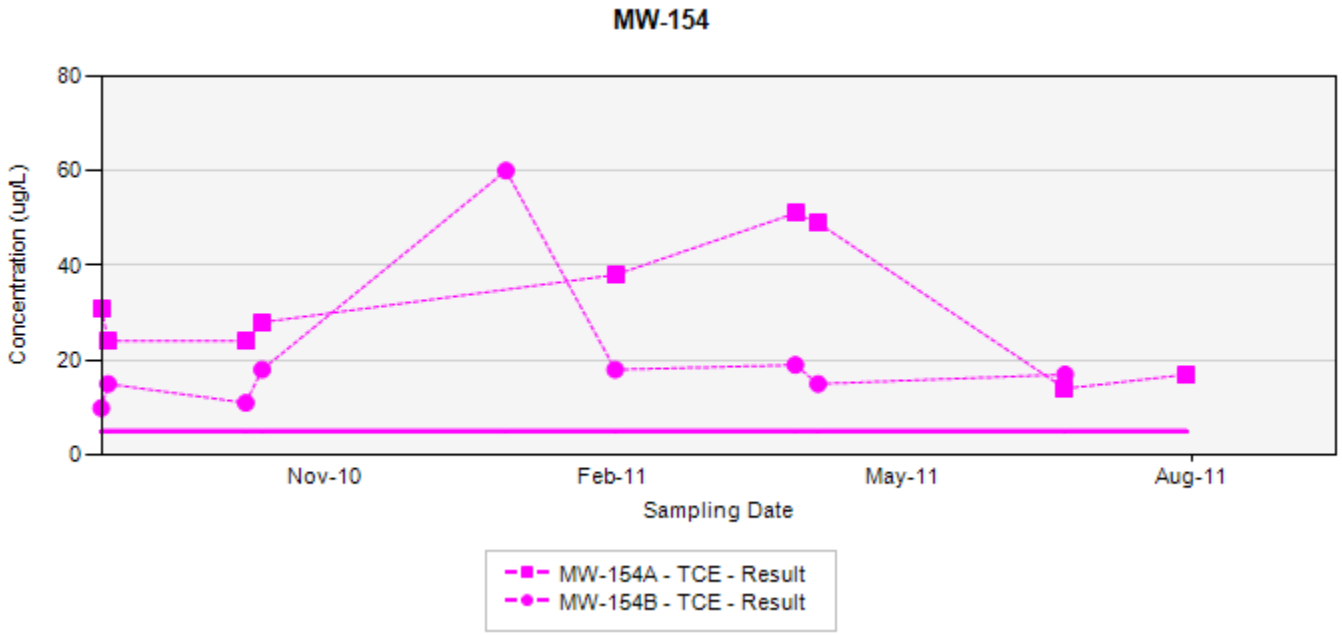

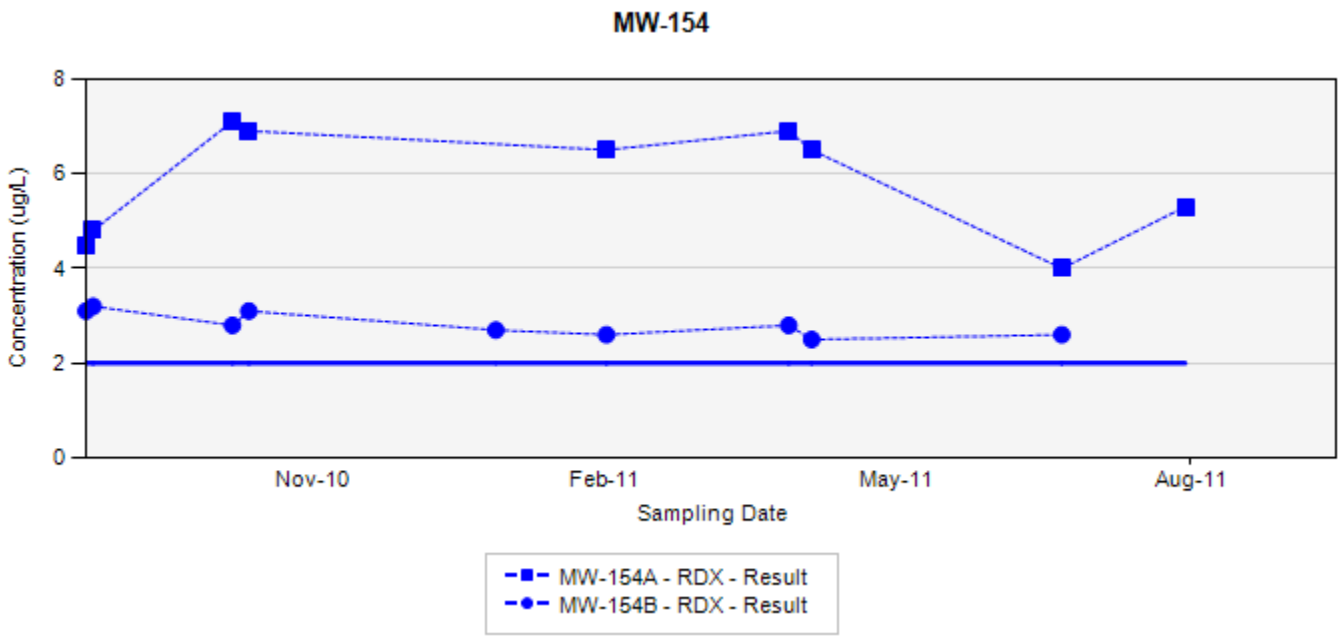

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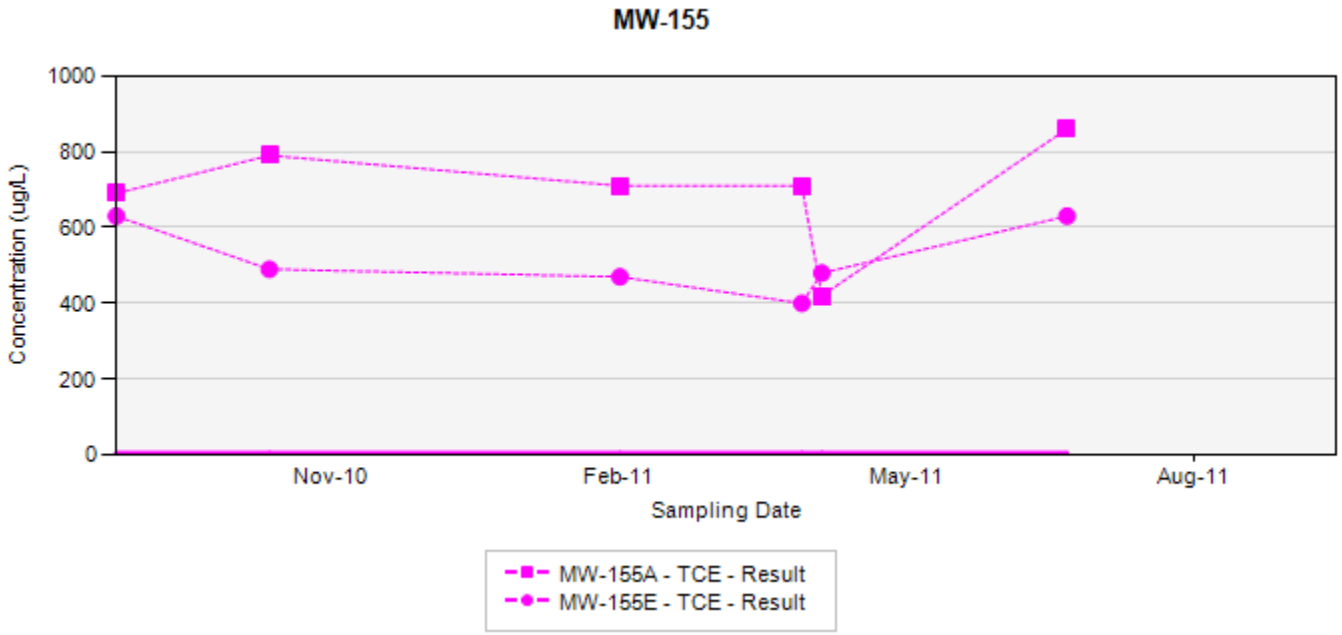

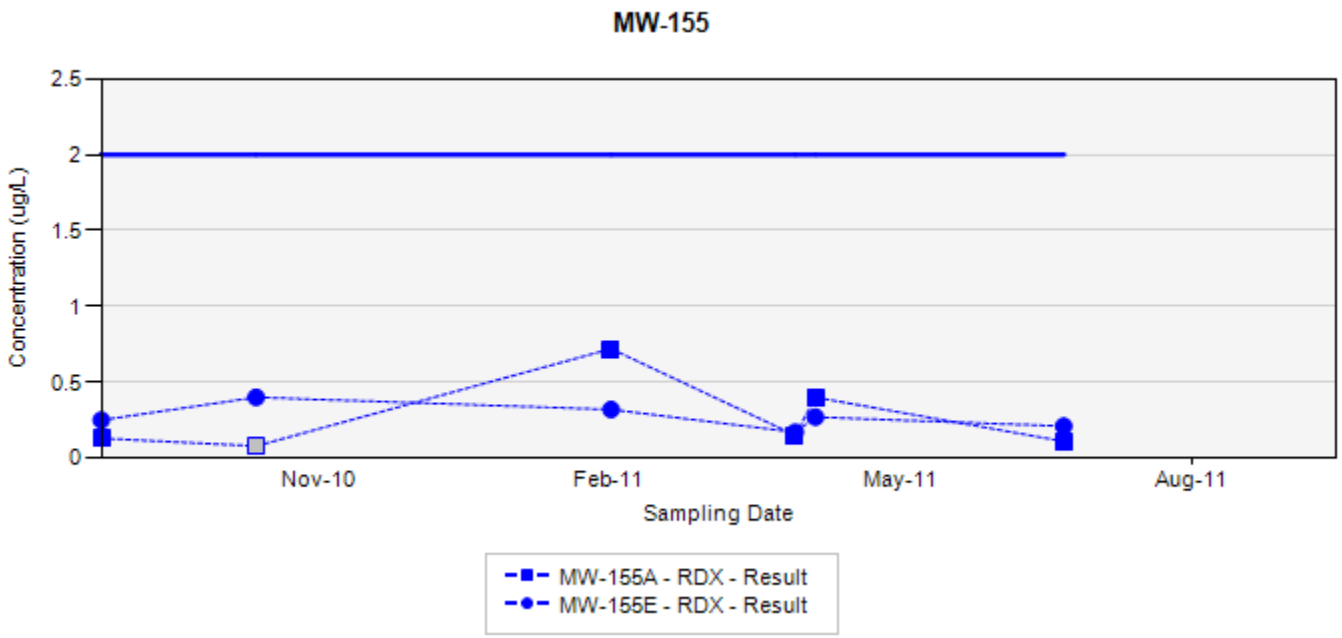

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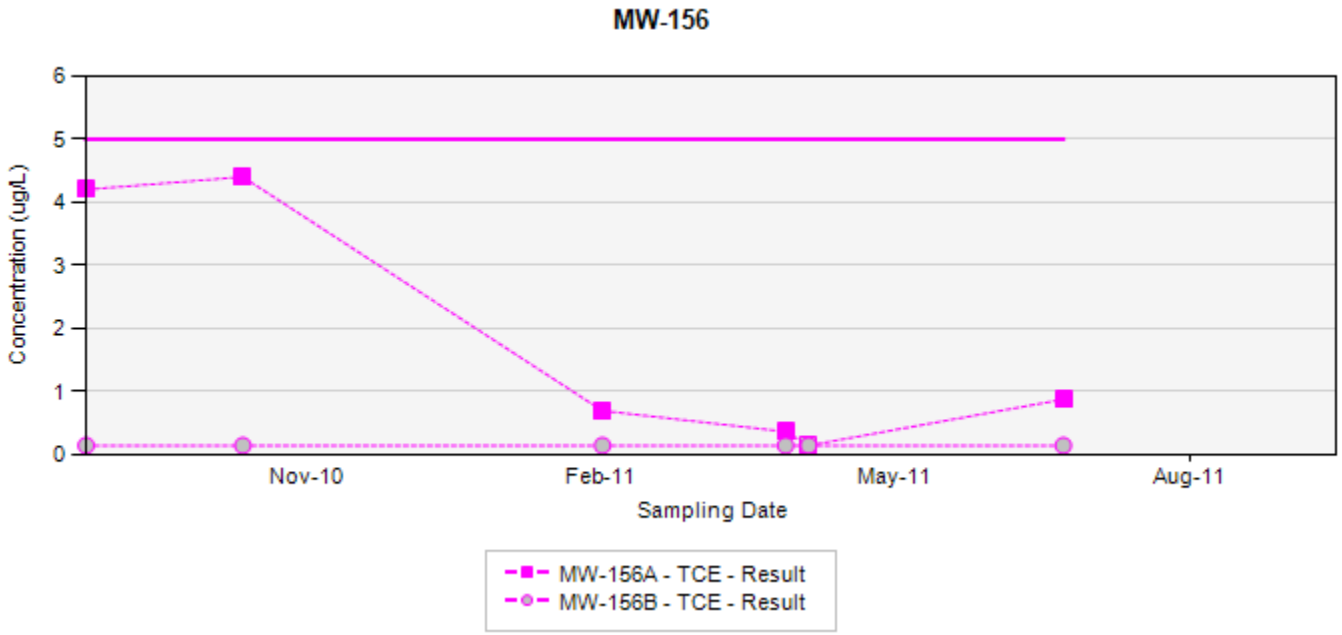

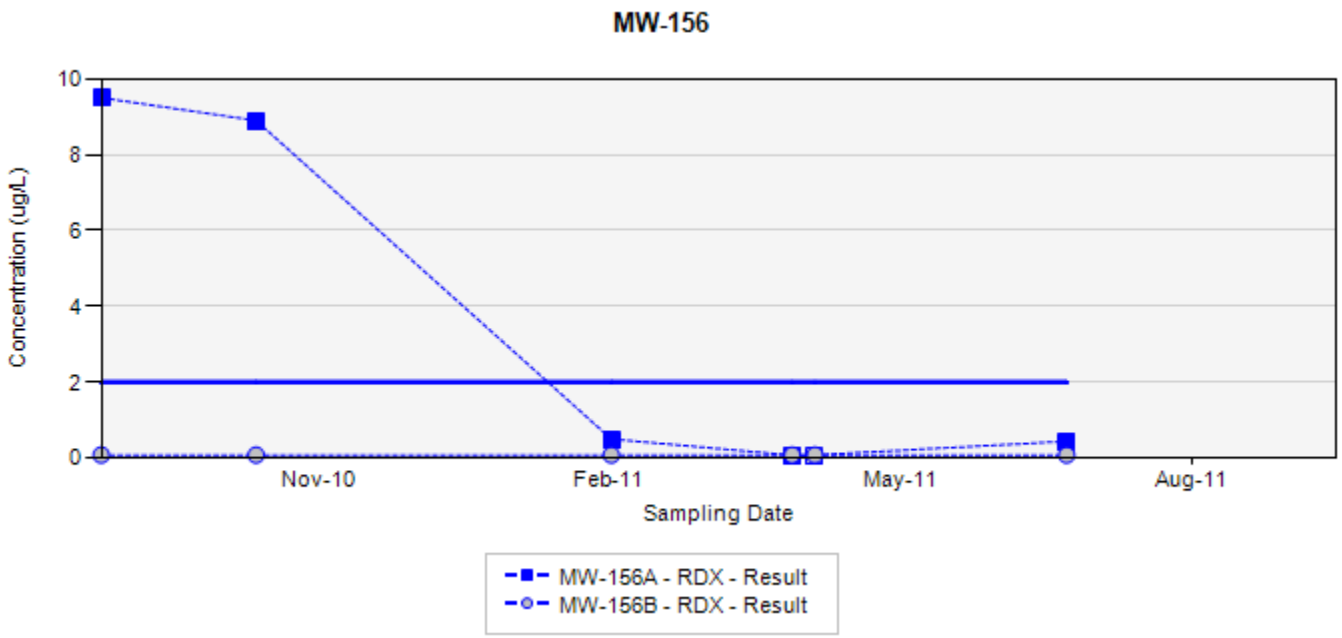

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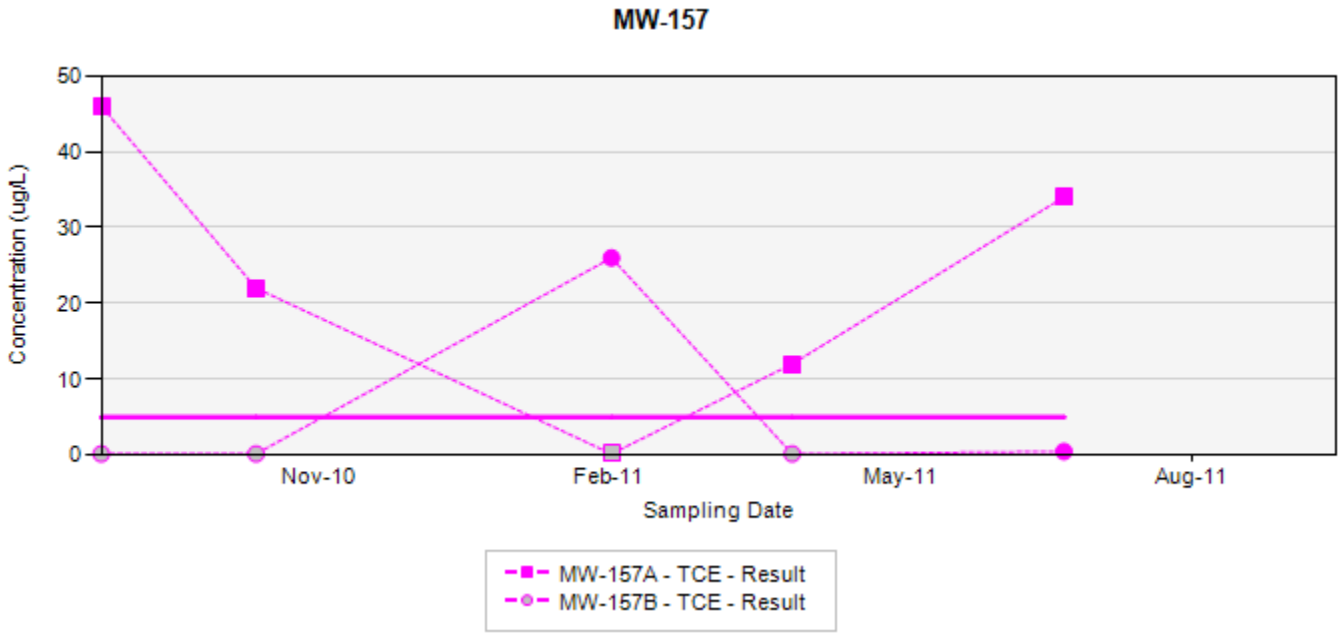

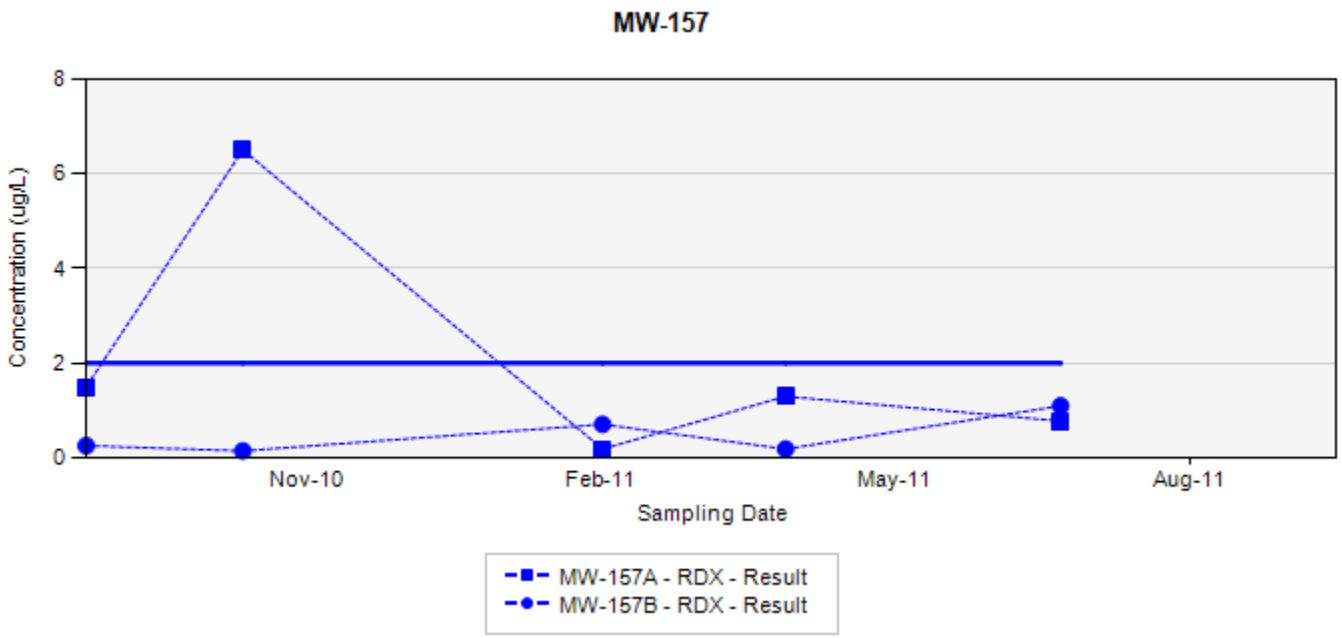

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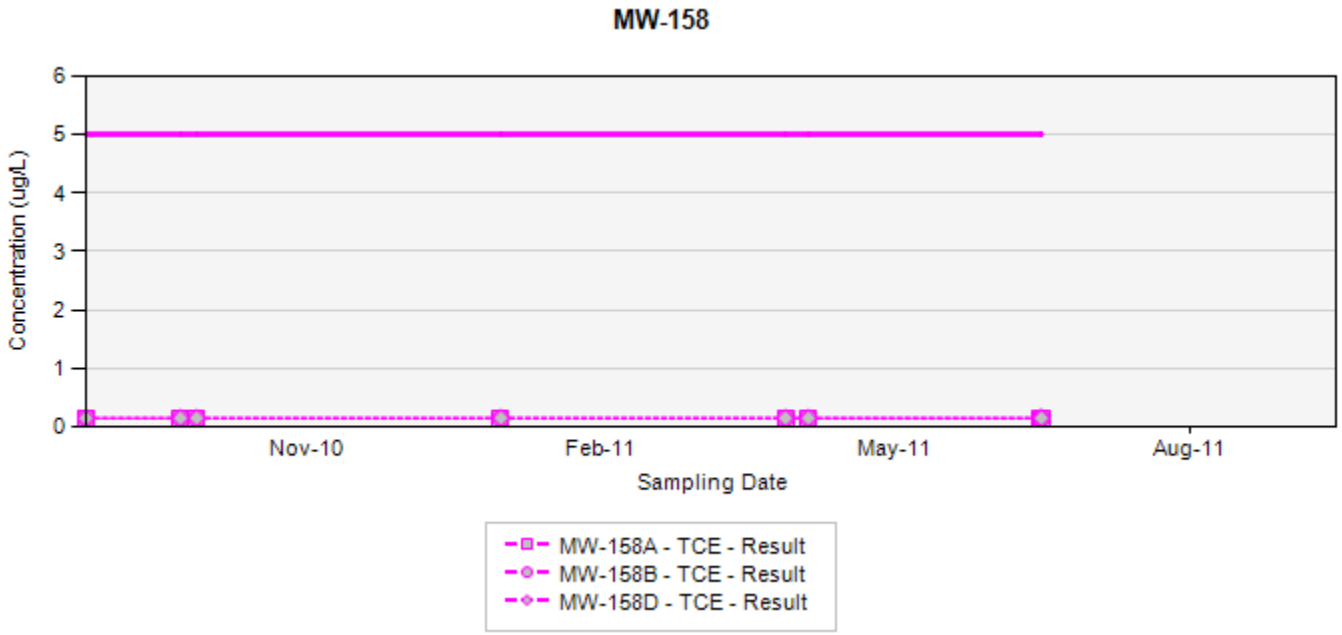

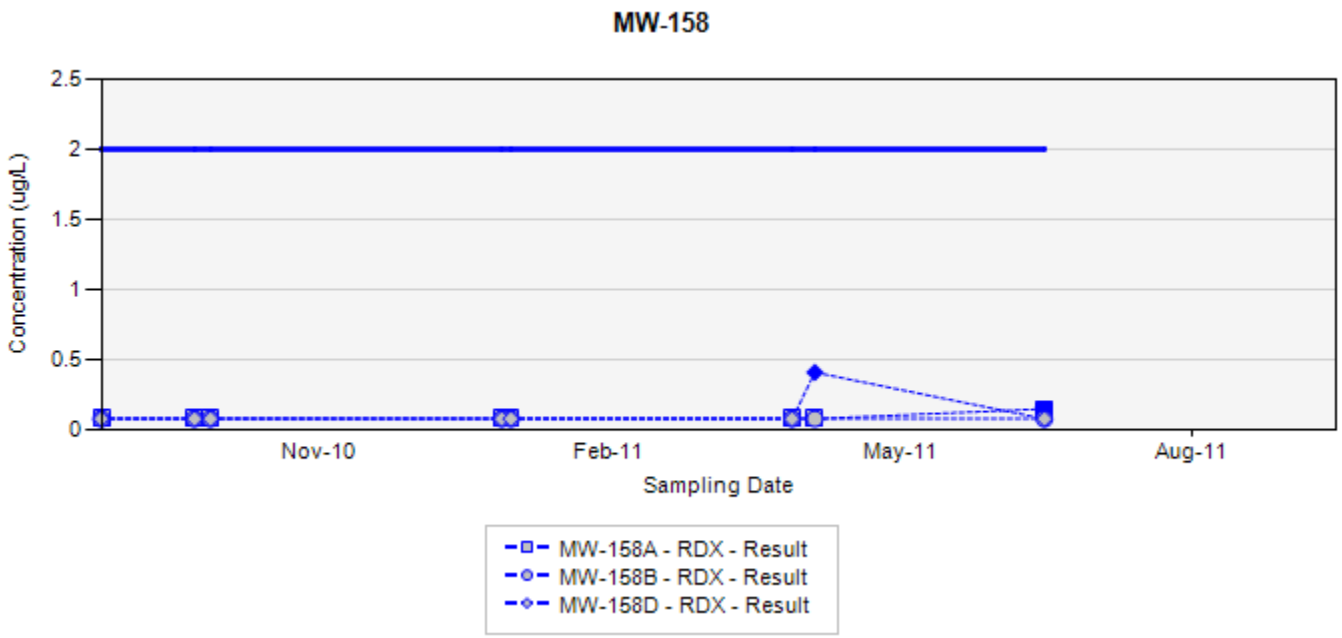

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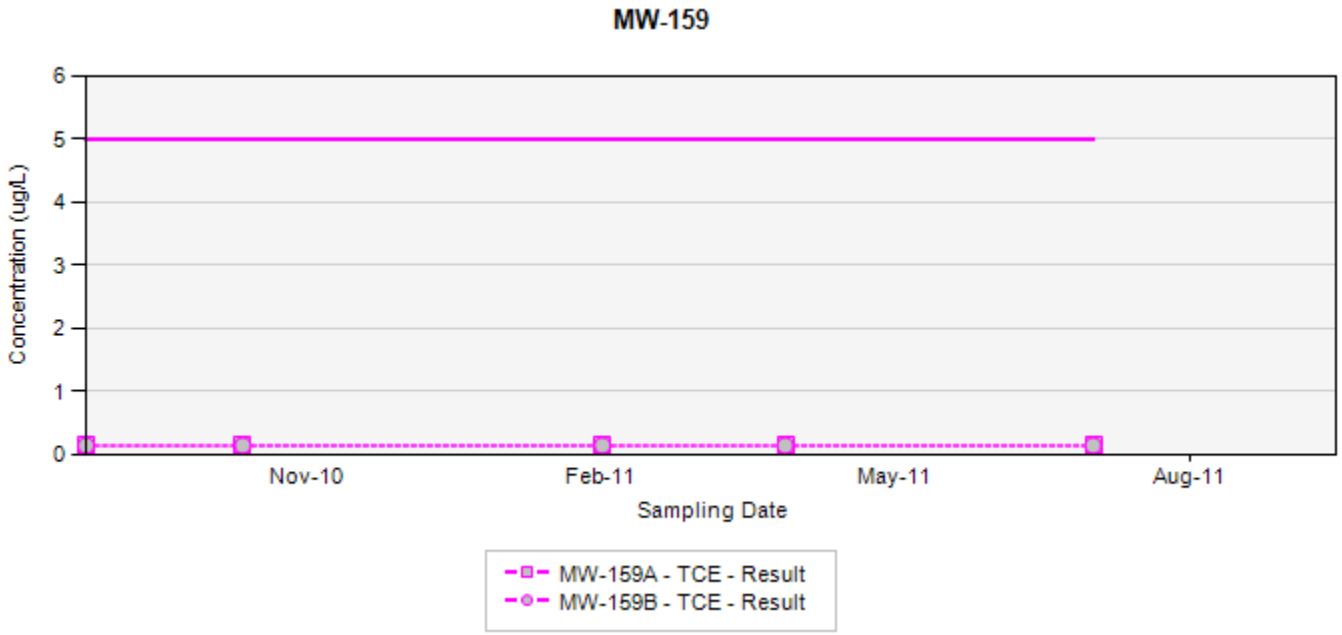

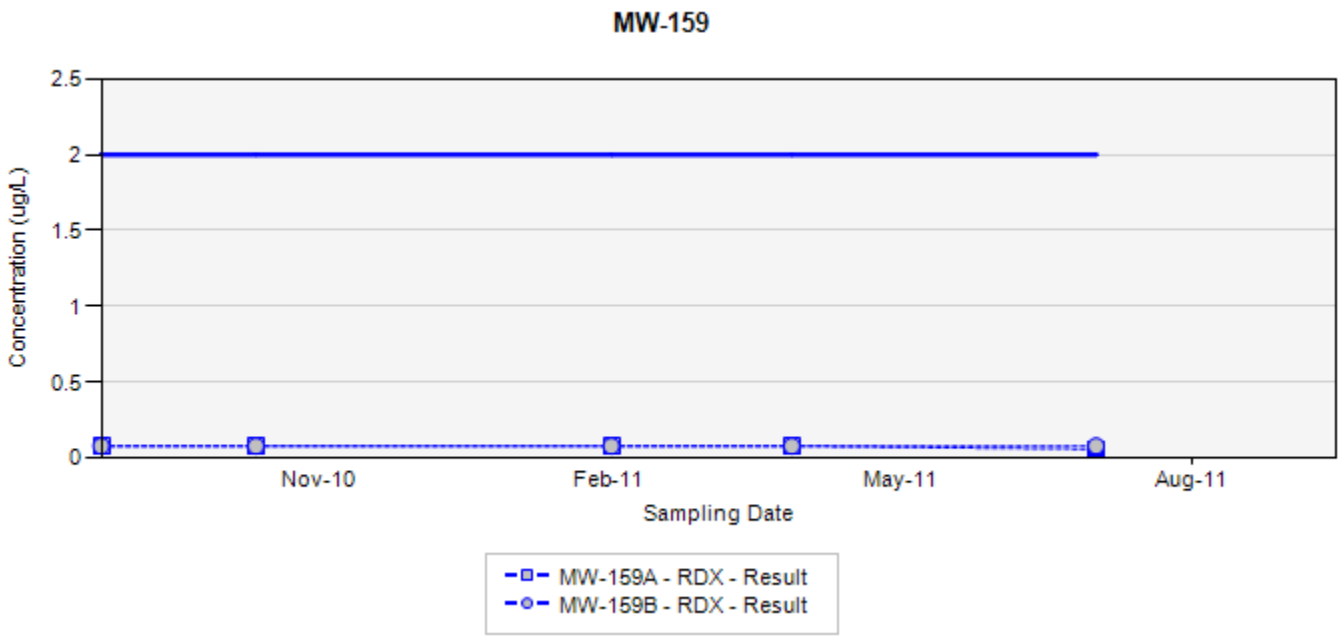

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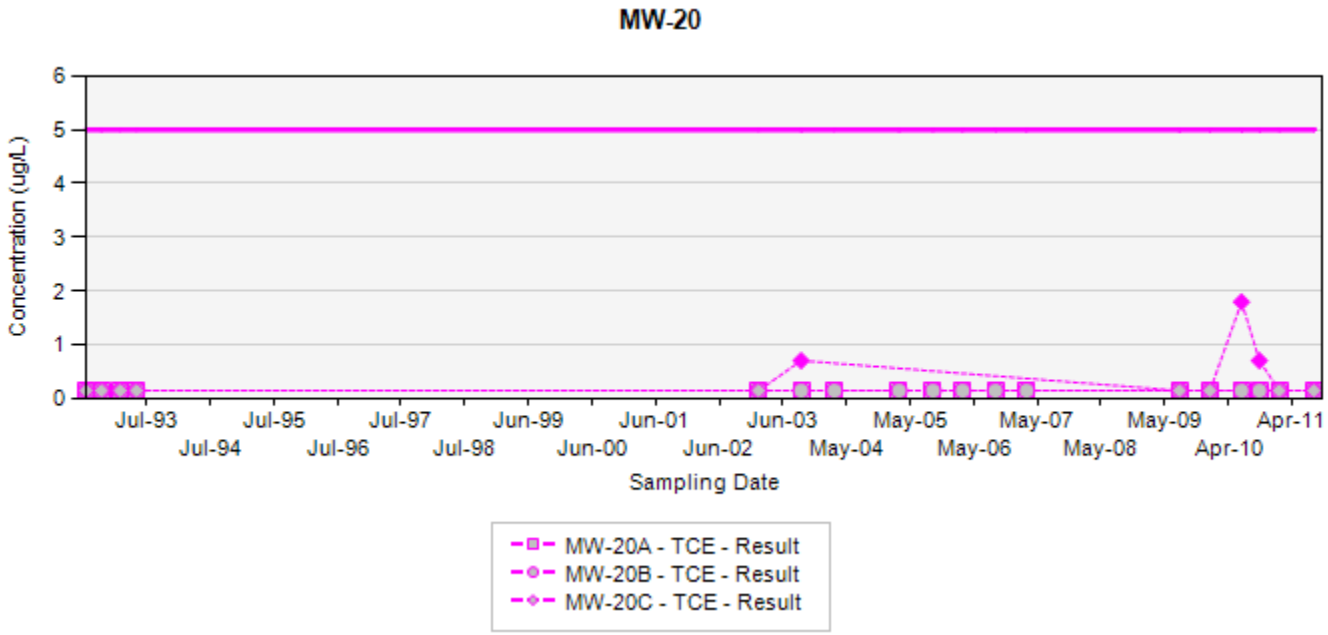

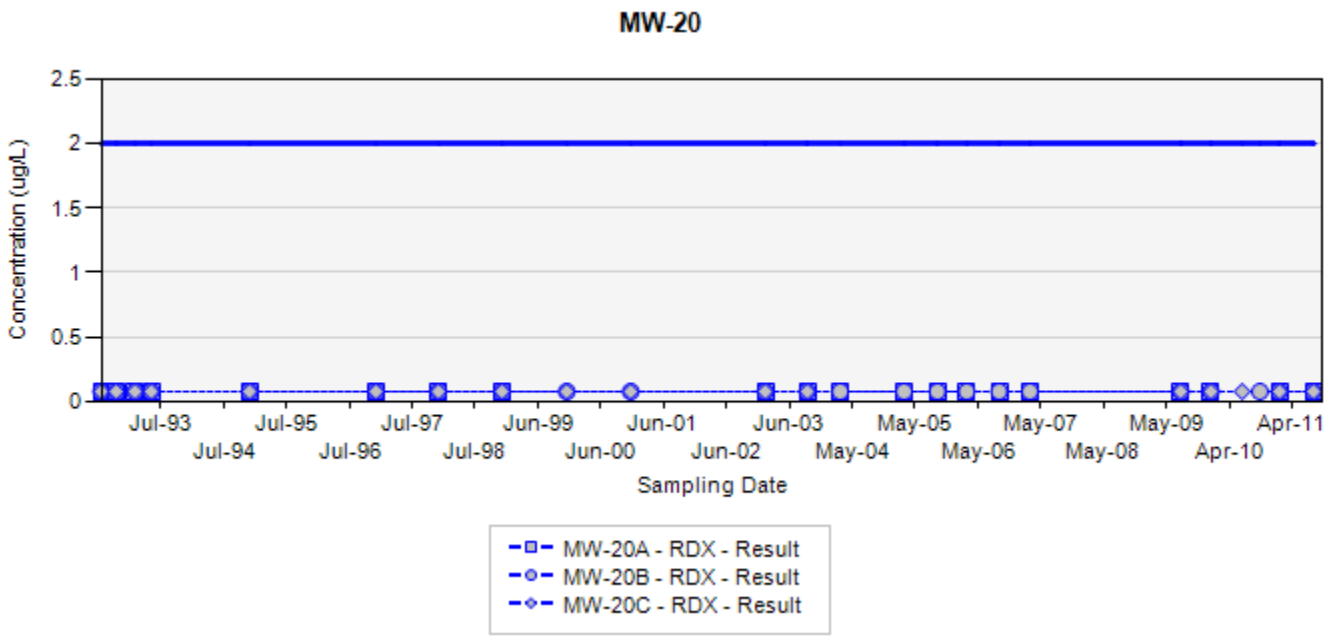

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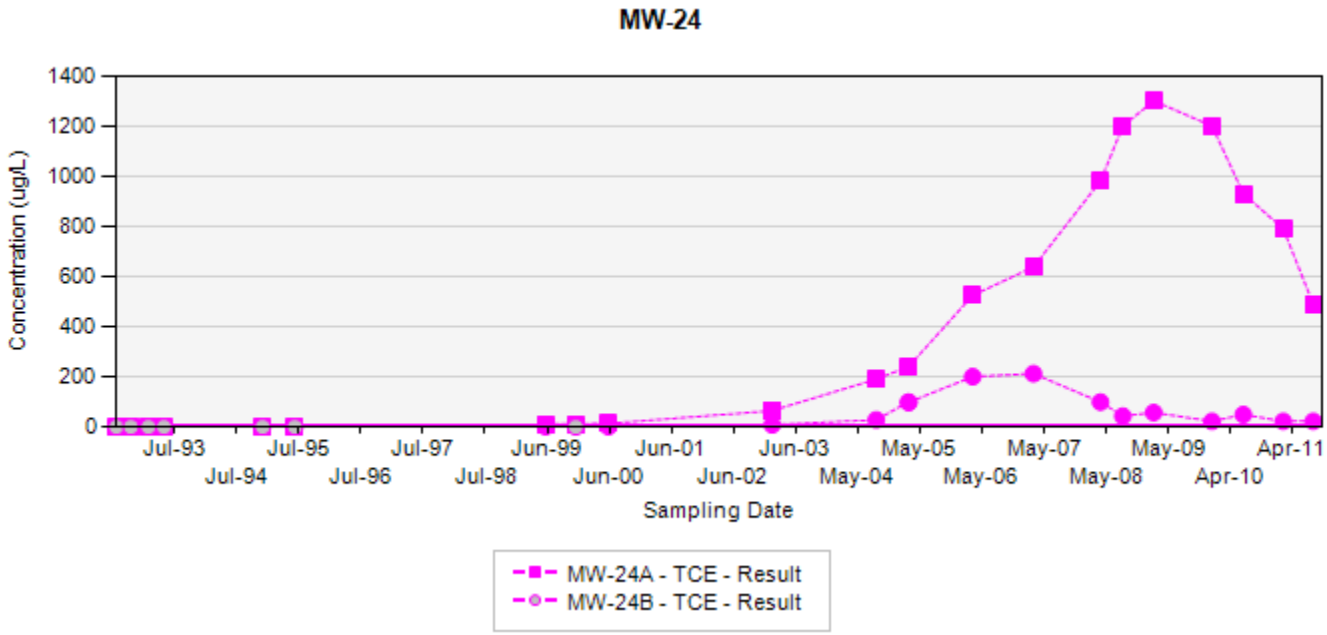

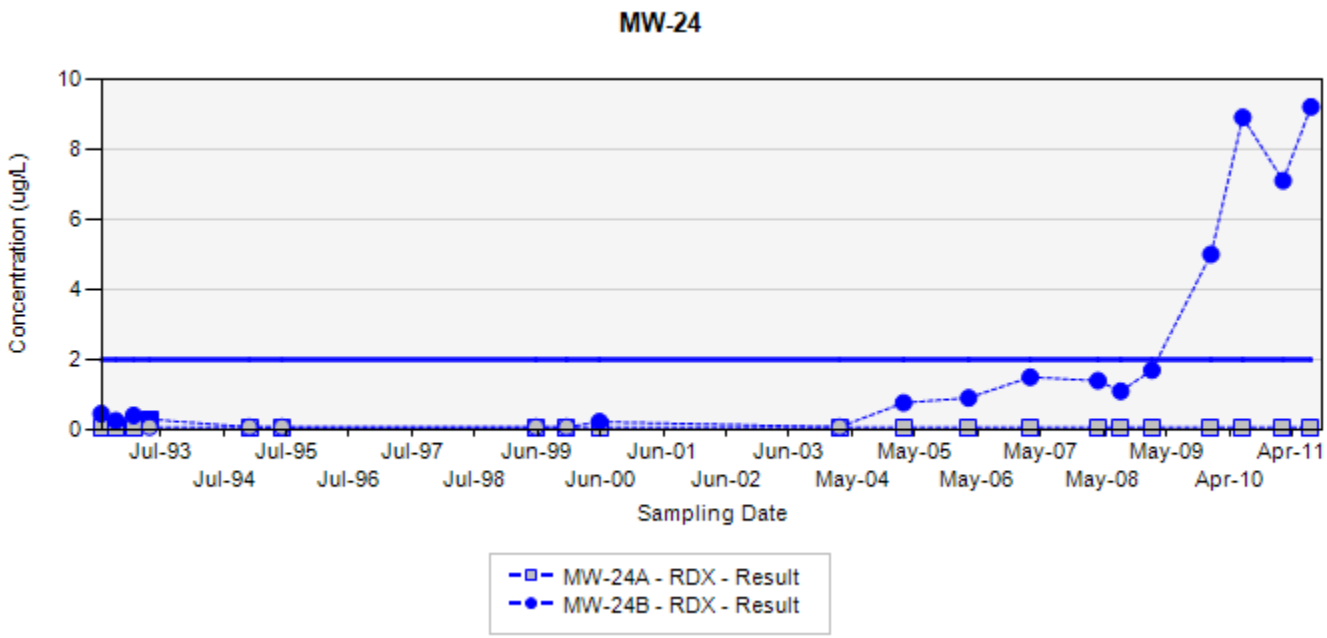

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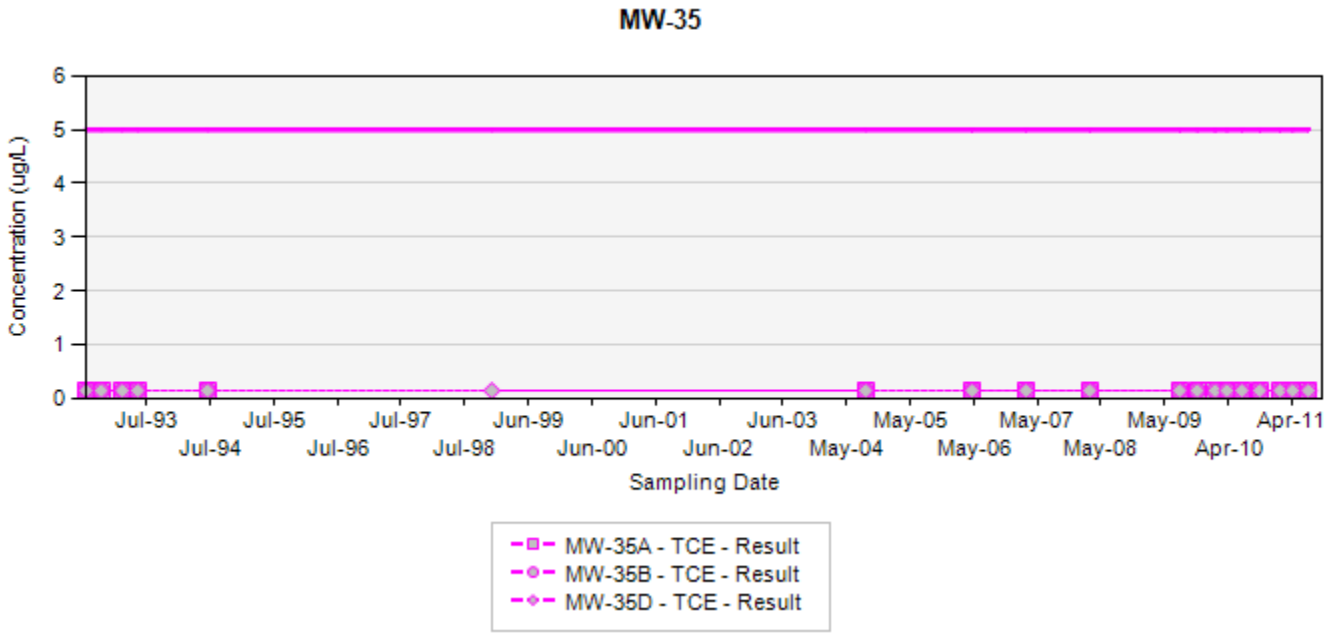

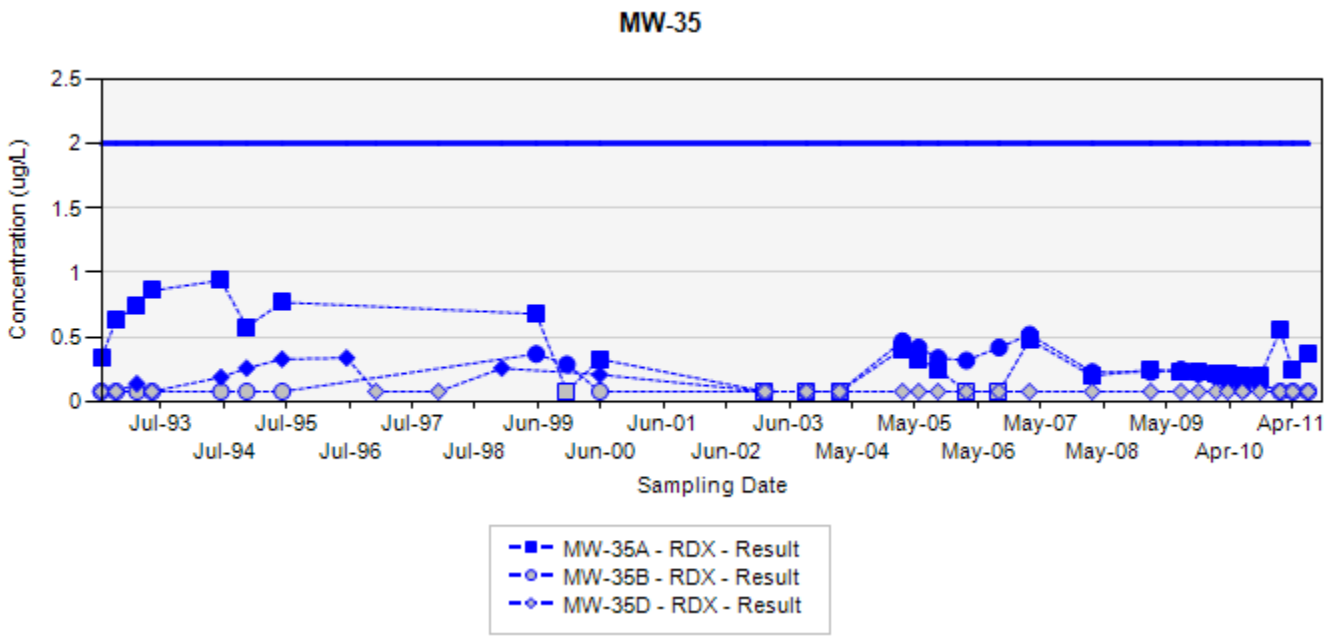

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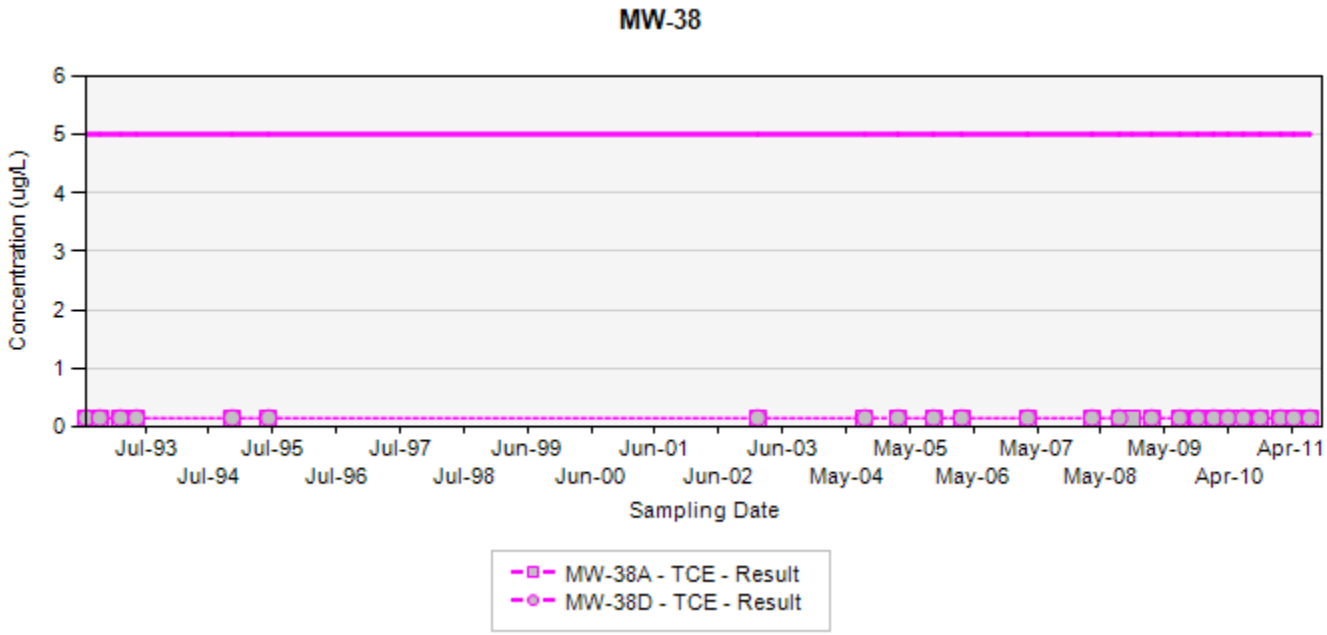

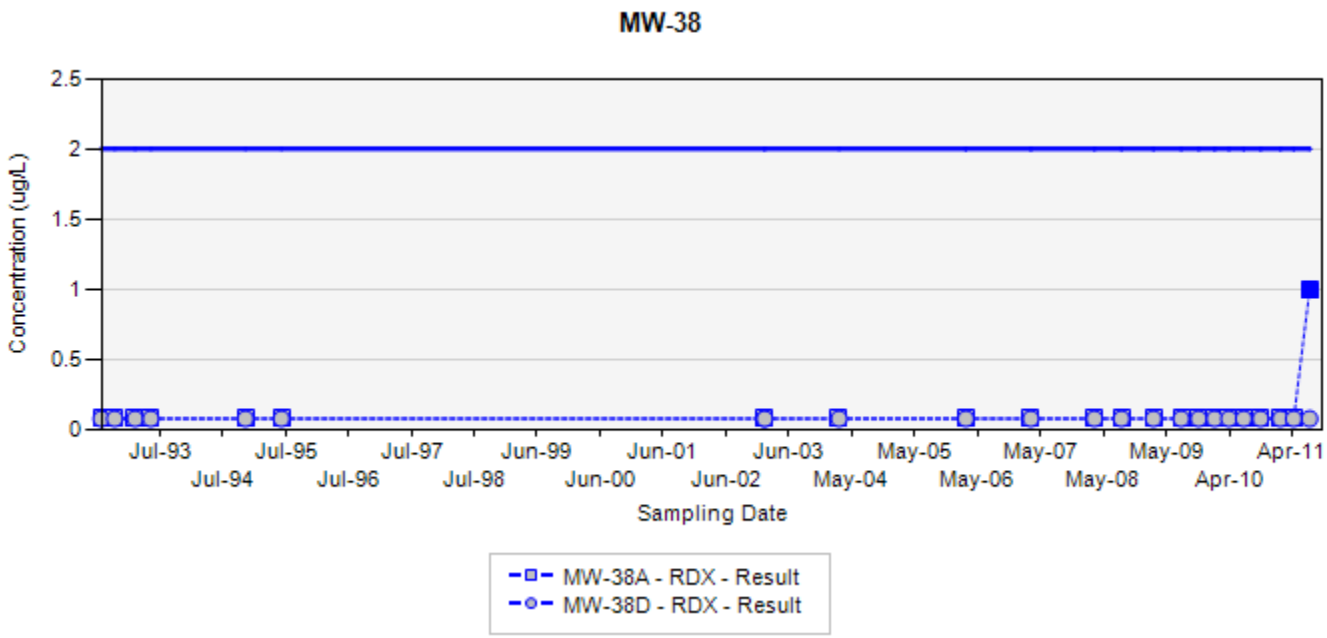

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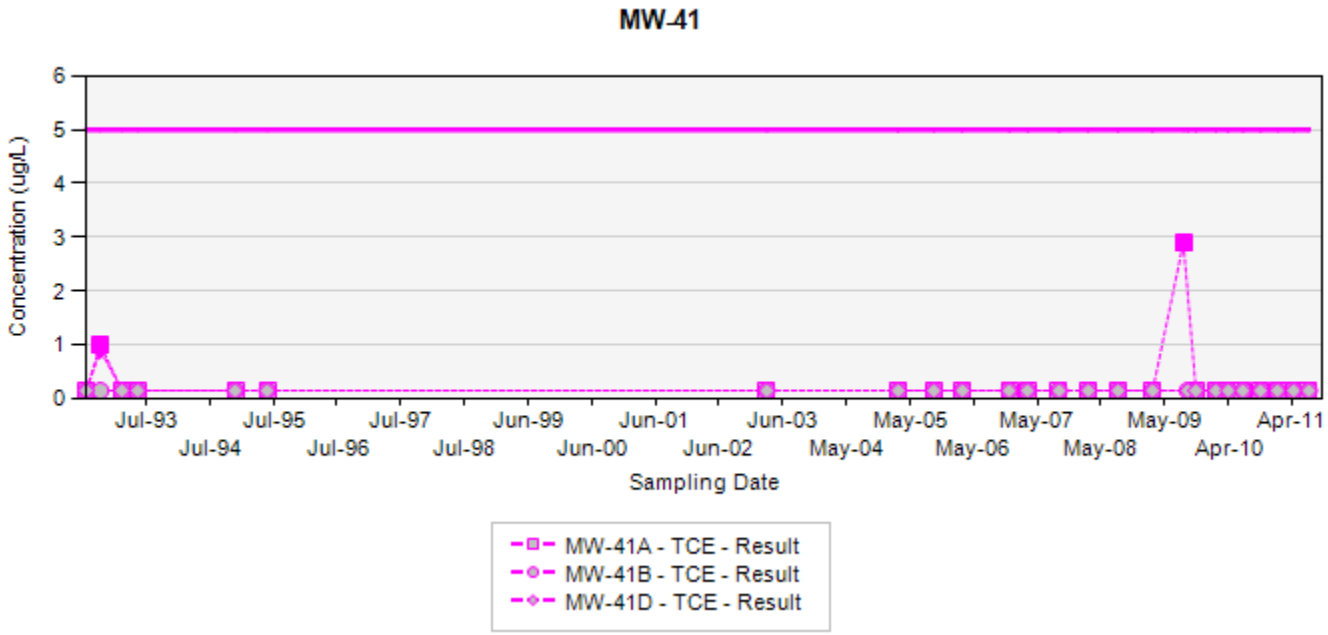

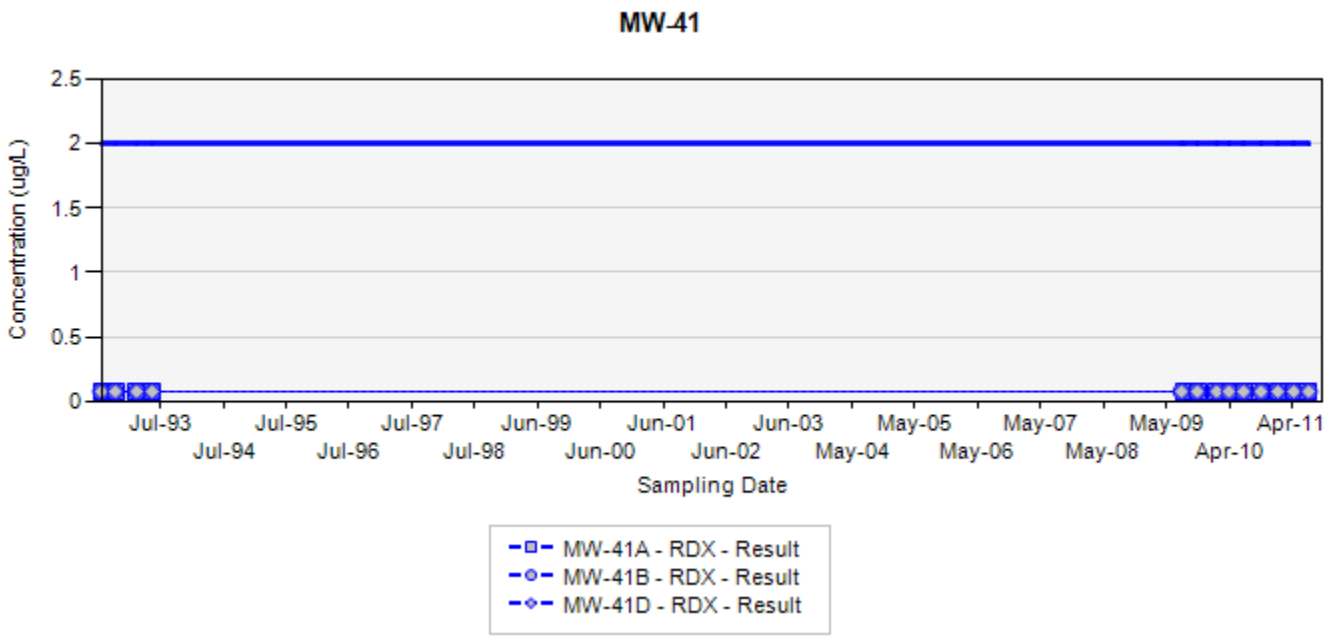

TCE - trichloroethene
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Final Target Groundwater Cleanup Goals for TCE is 5 µg/L
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In the event that both a normal sample and a field duplicate were collected, the higher of the two results will be displayed on the chart

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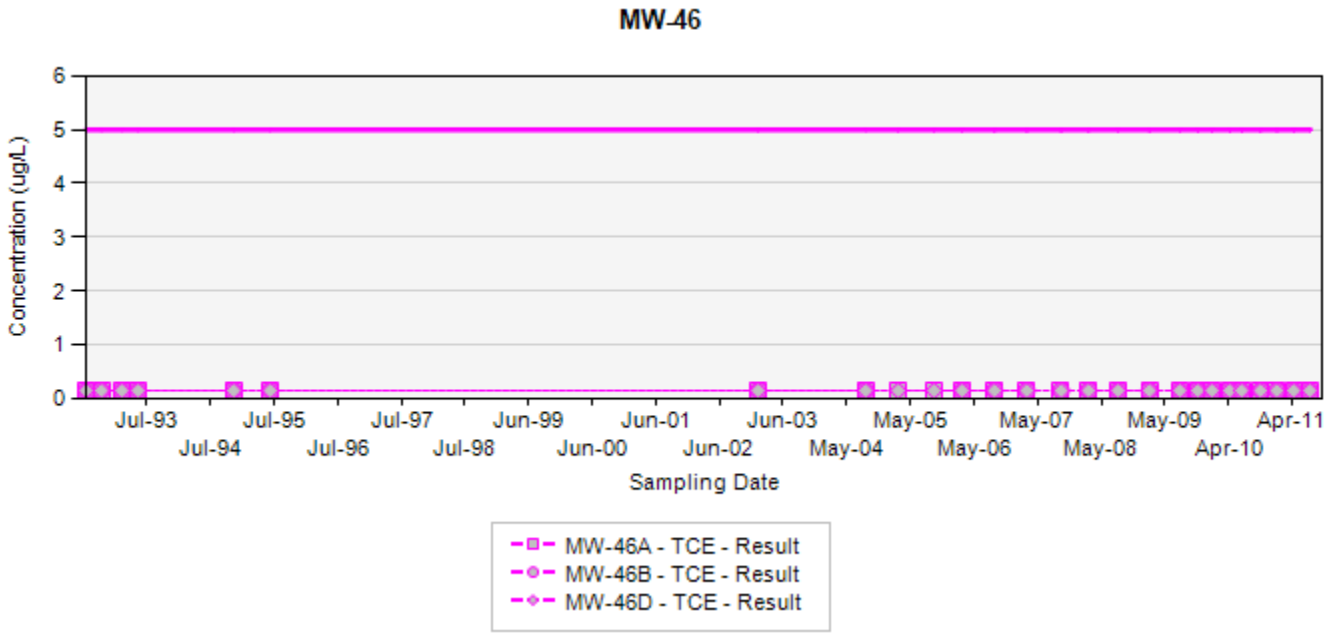

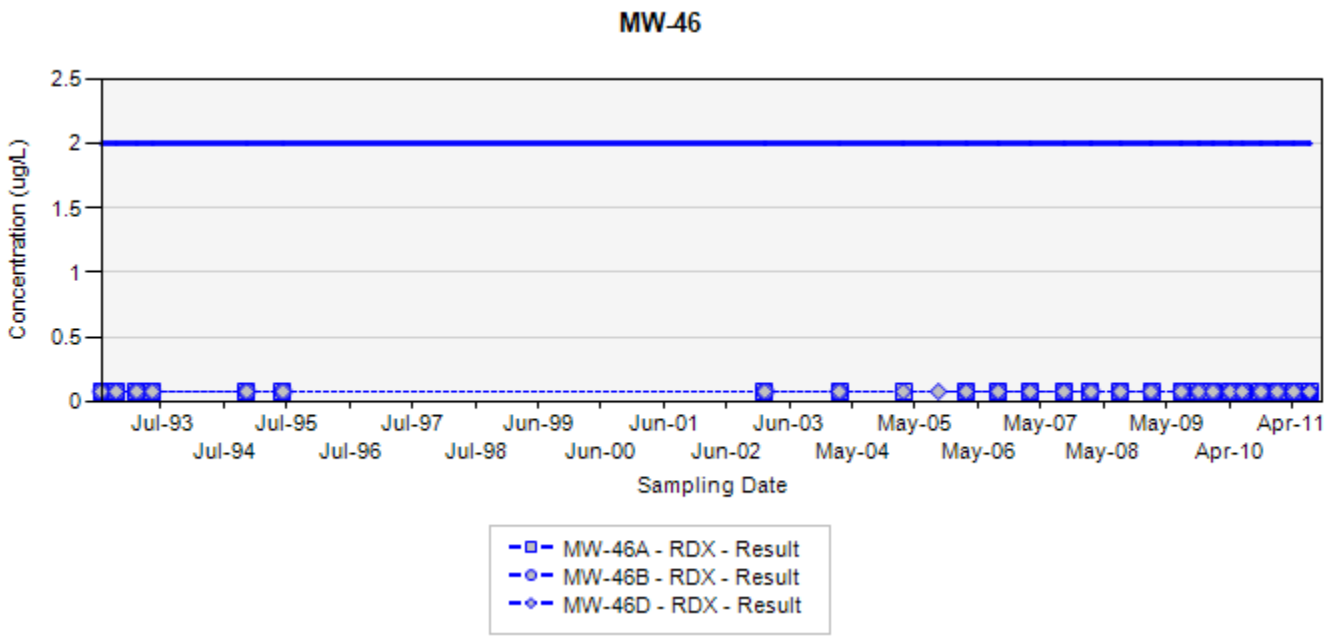

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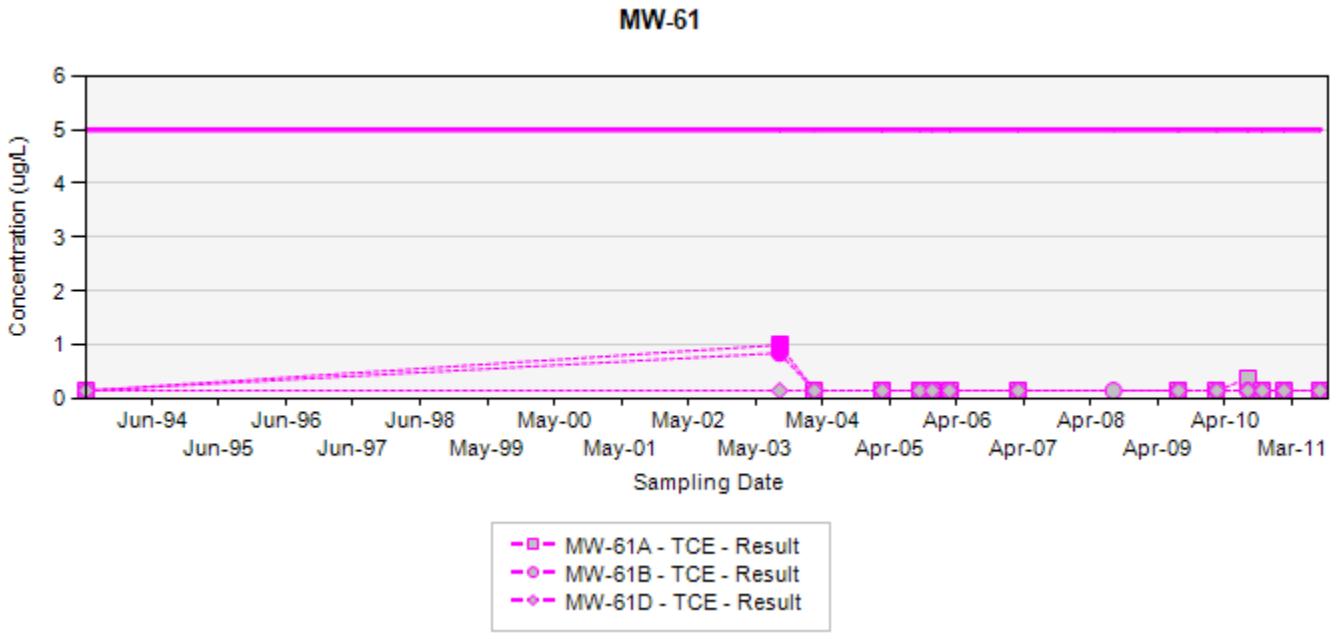

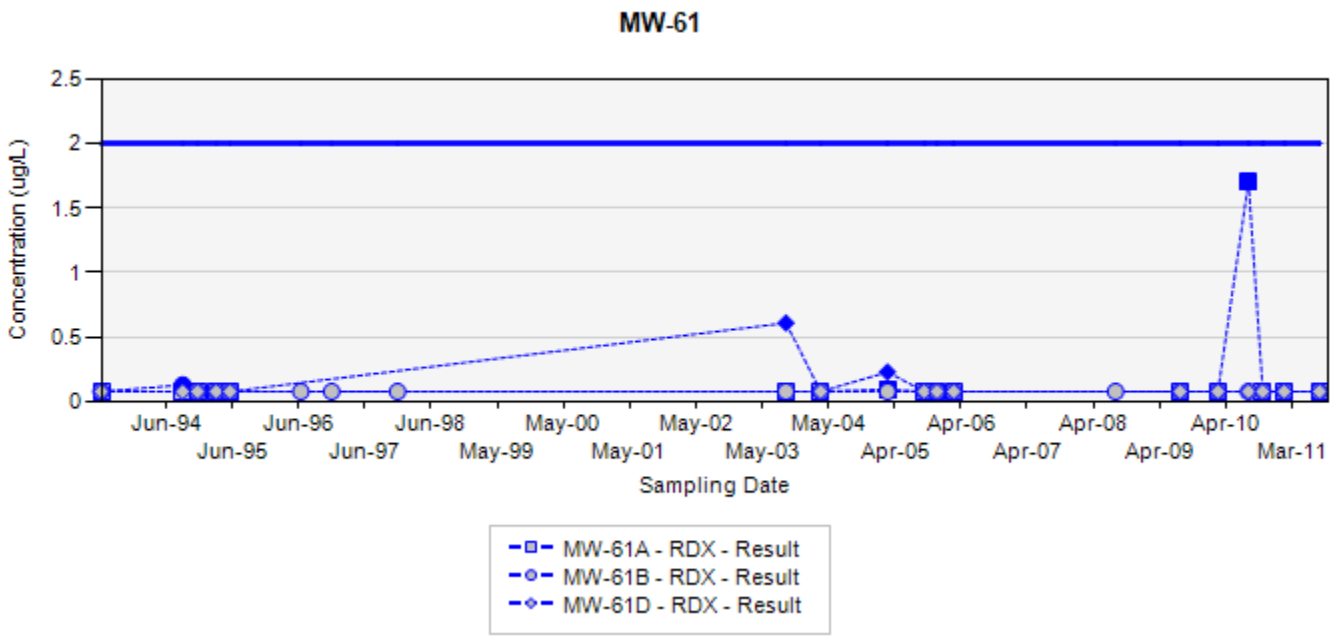

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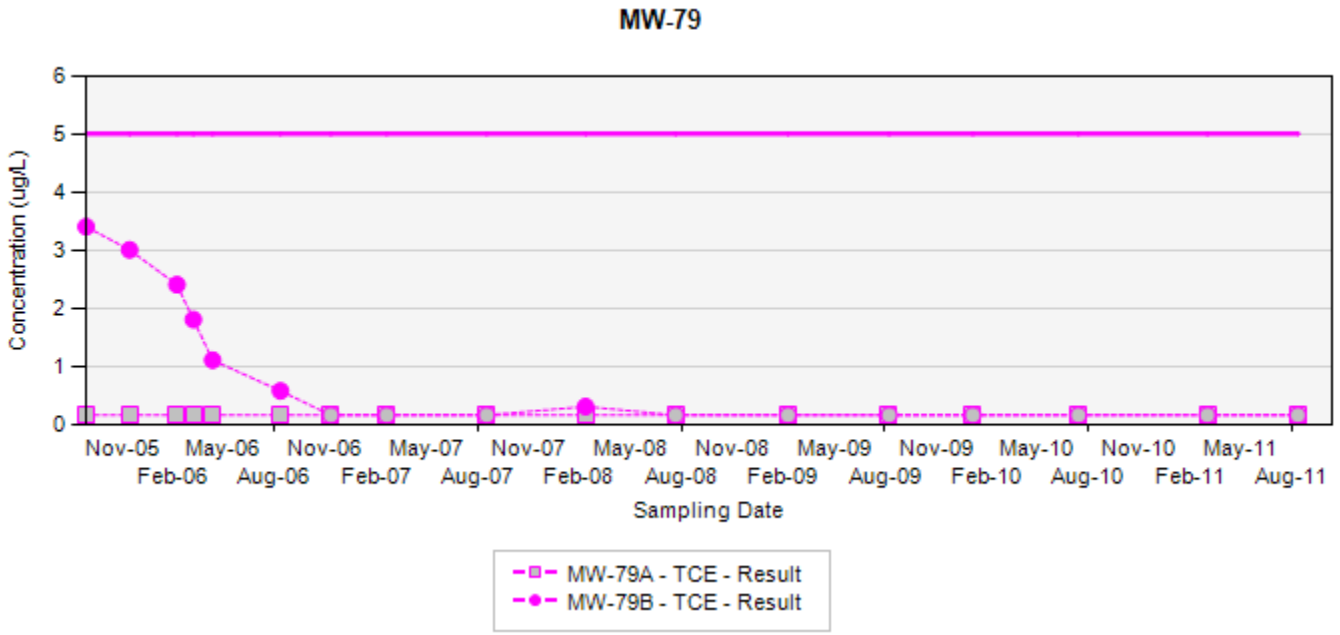

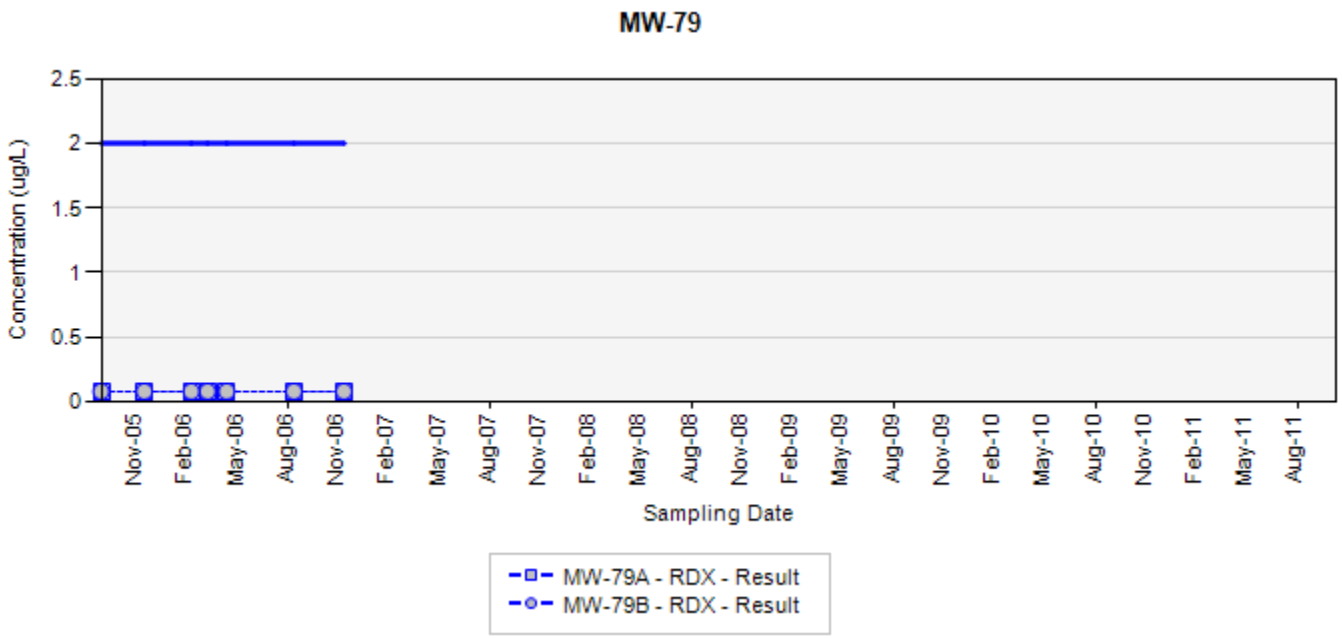

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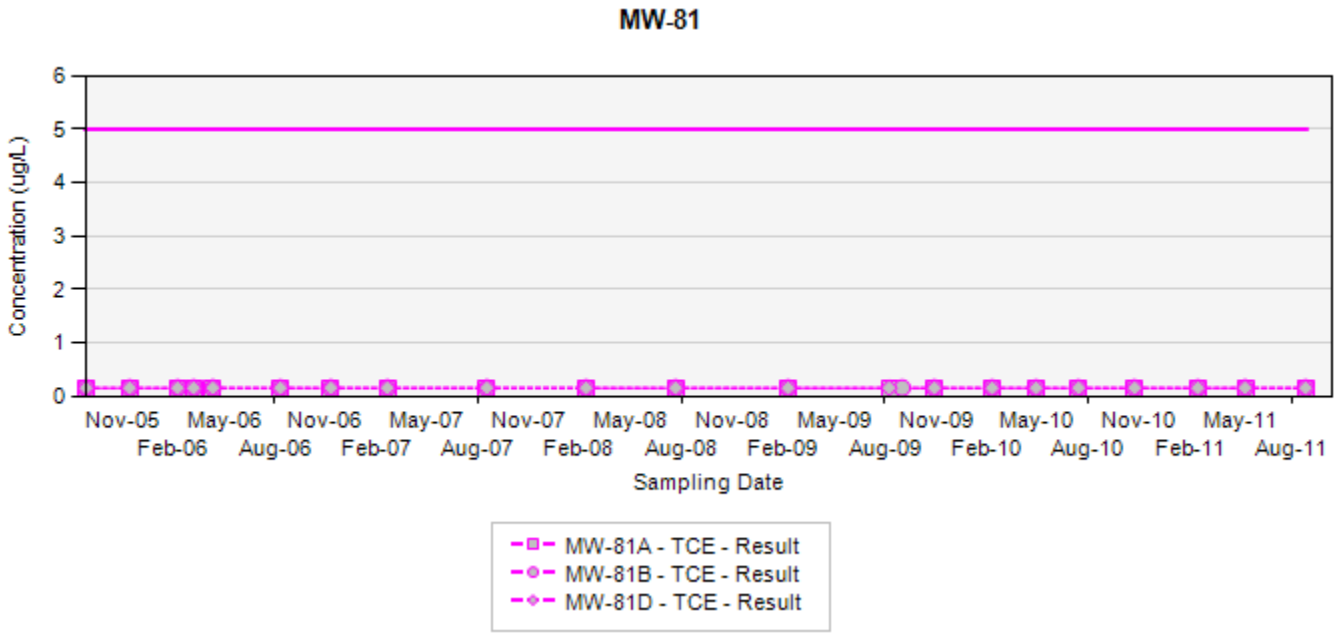

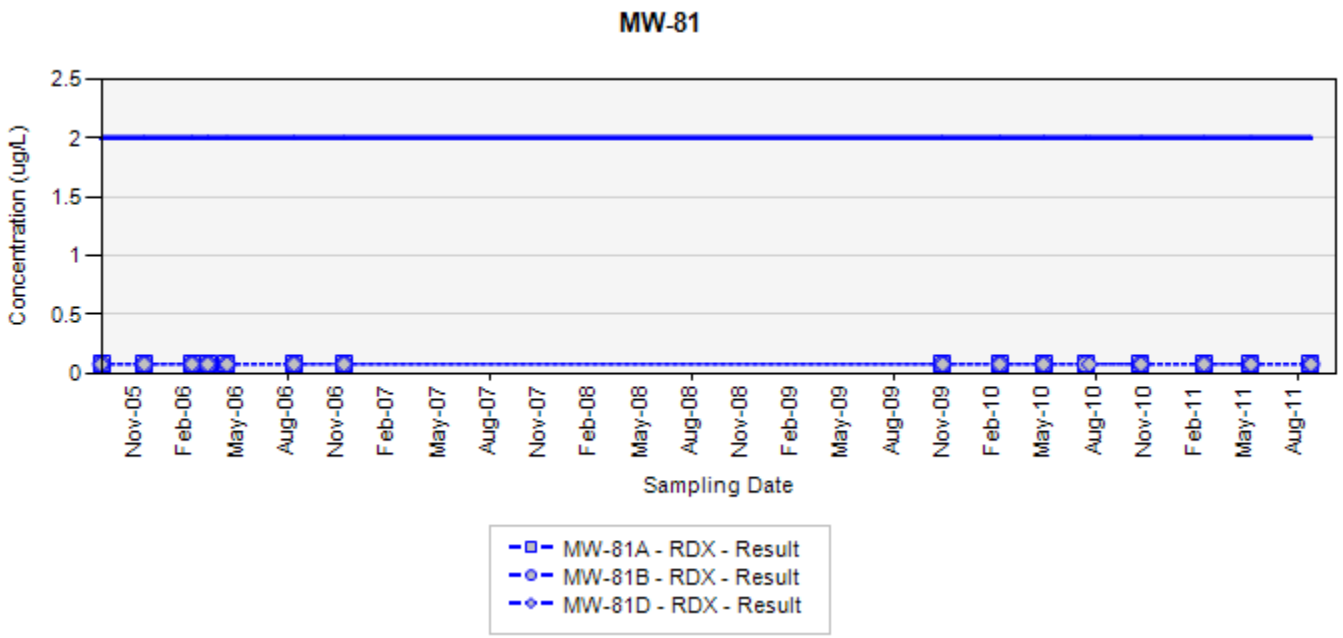

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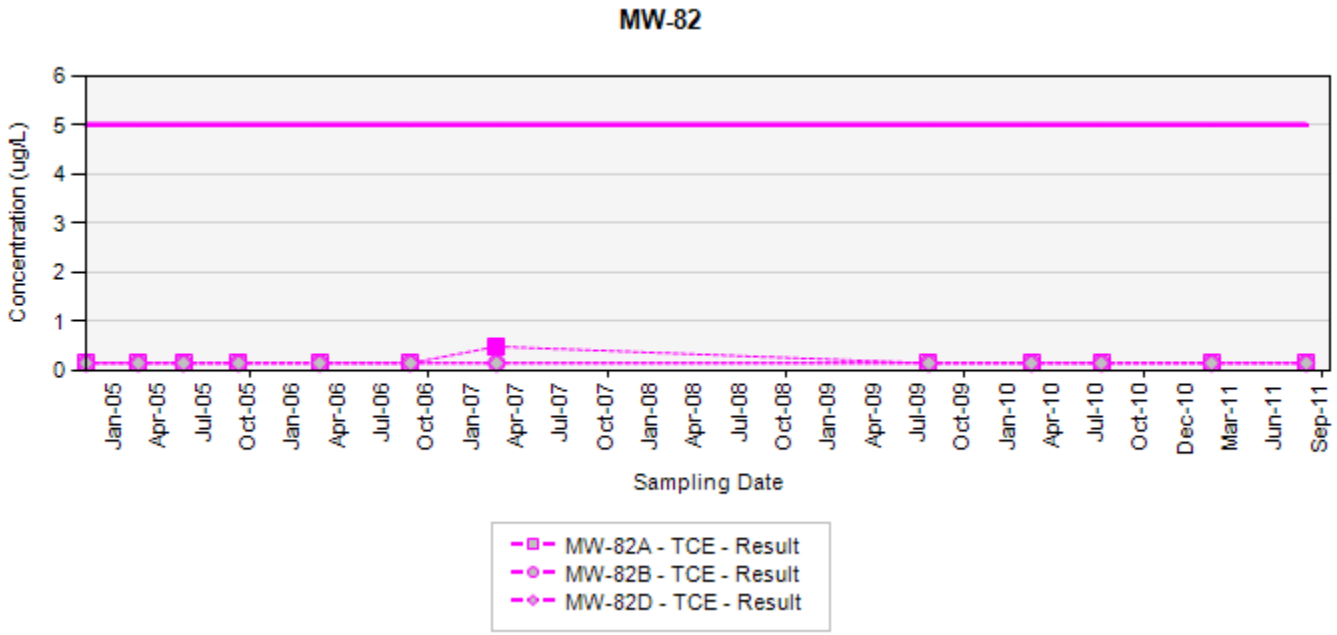

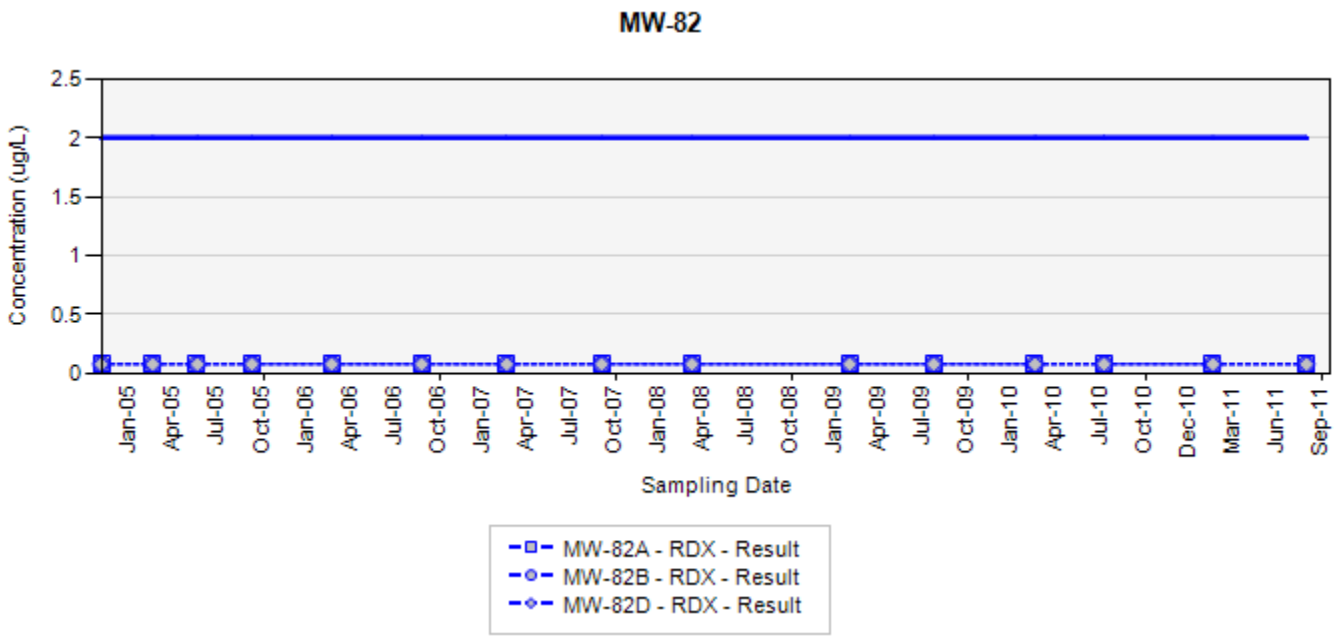

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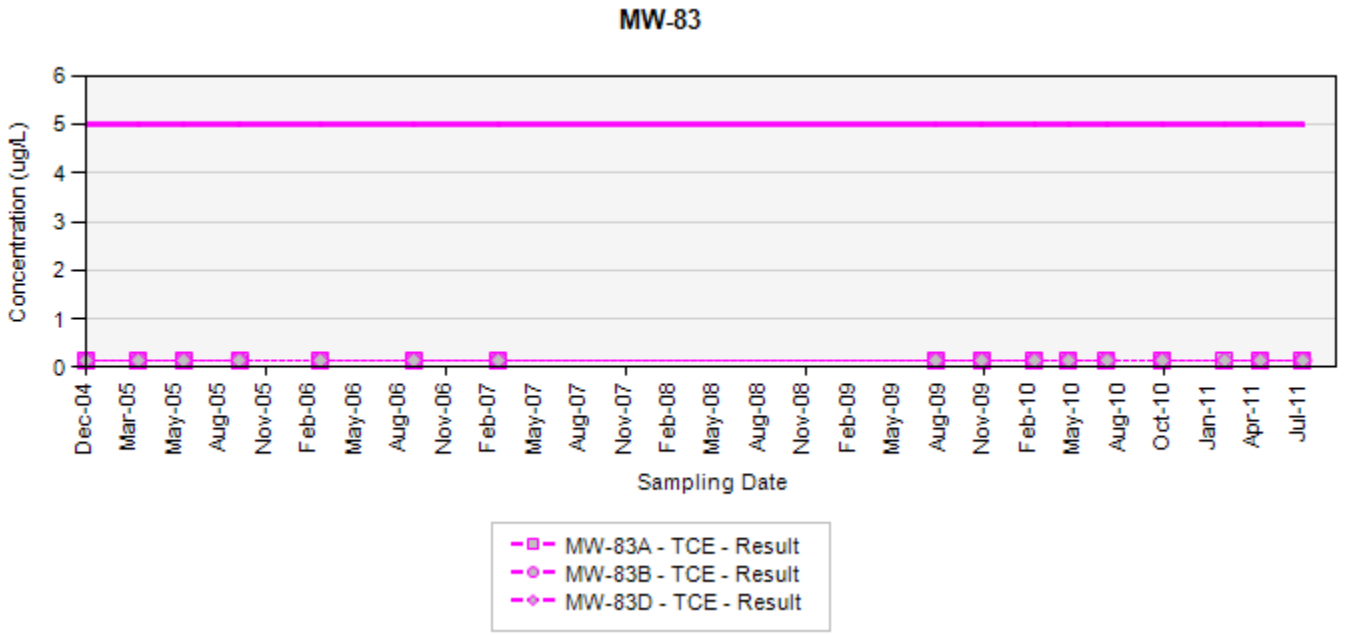

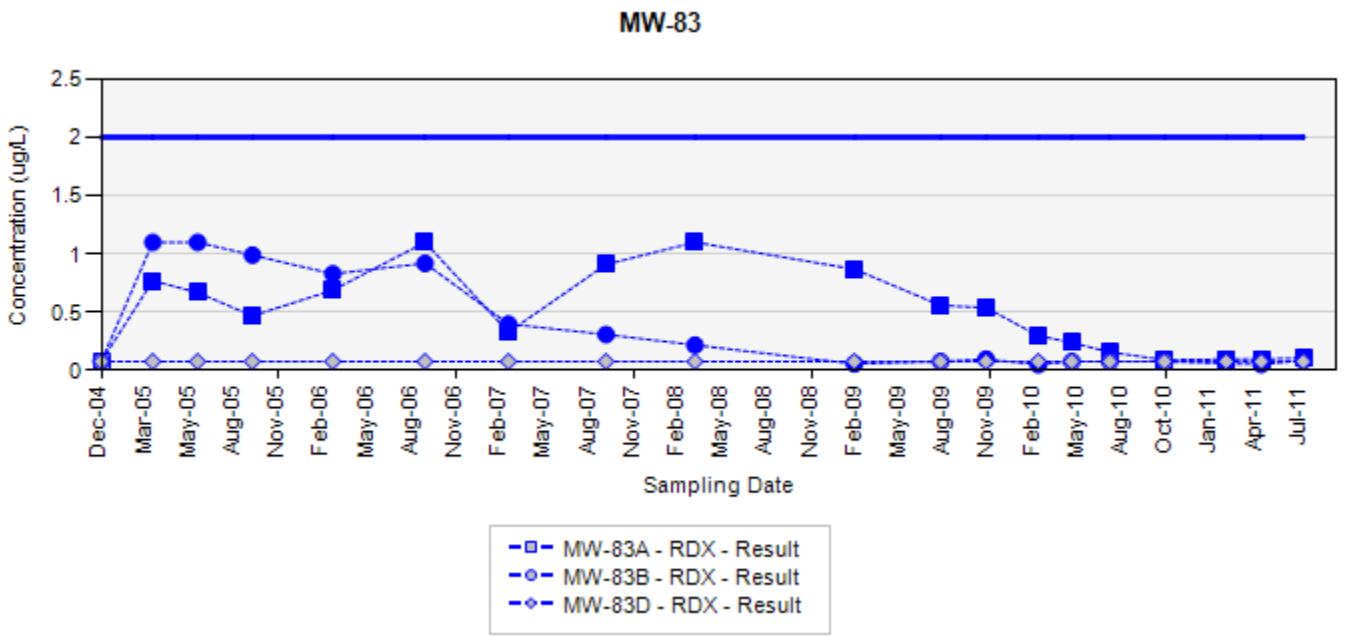

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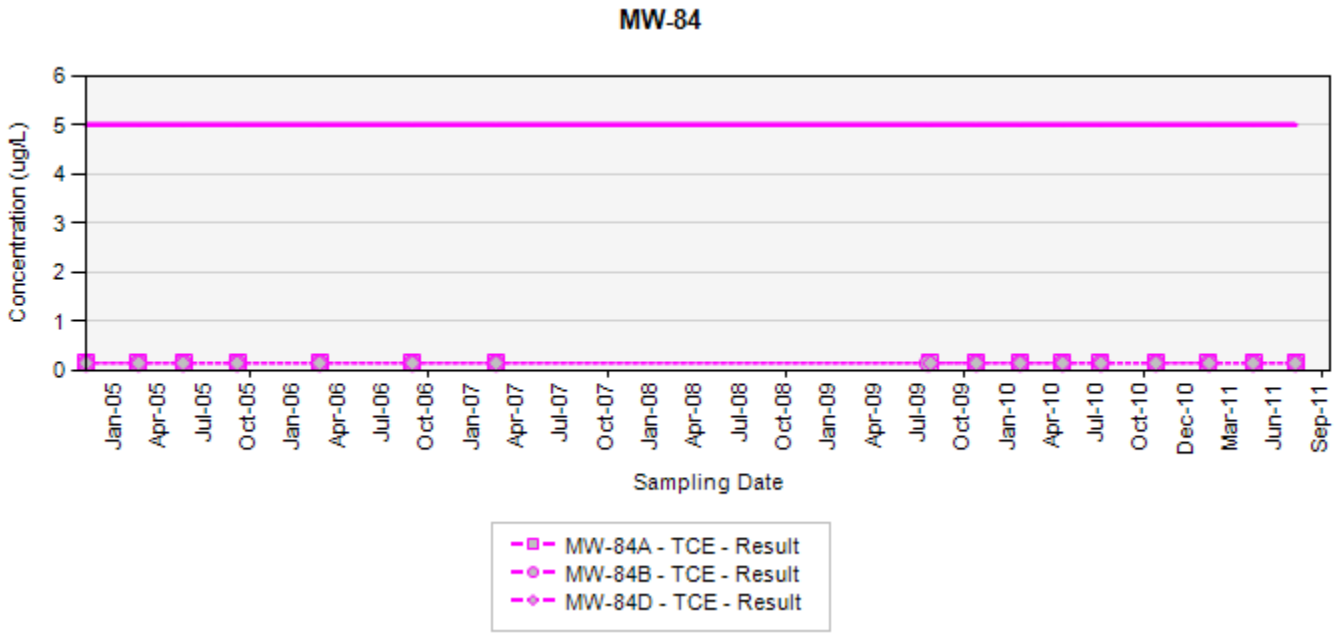

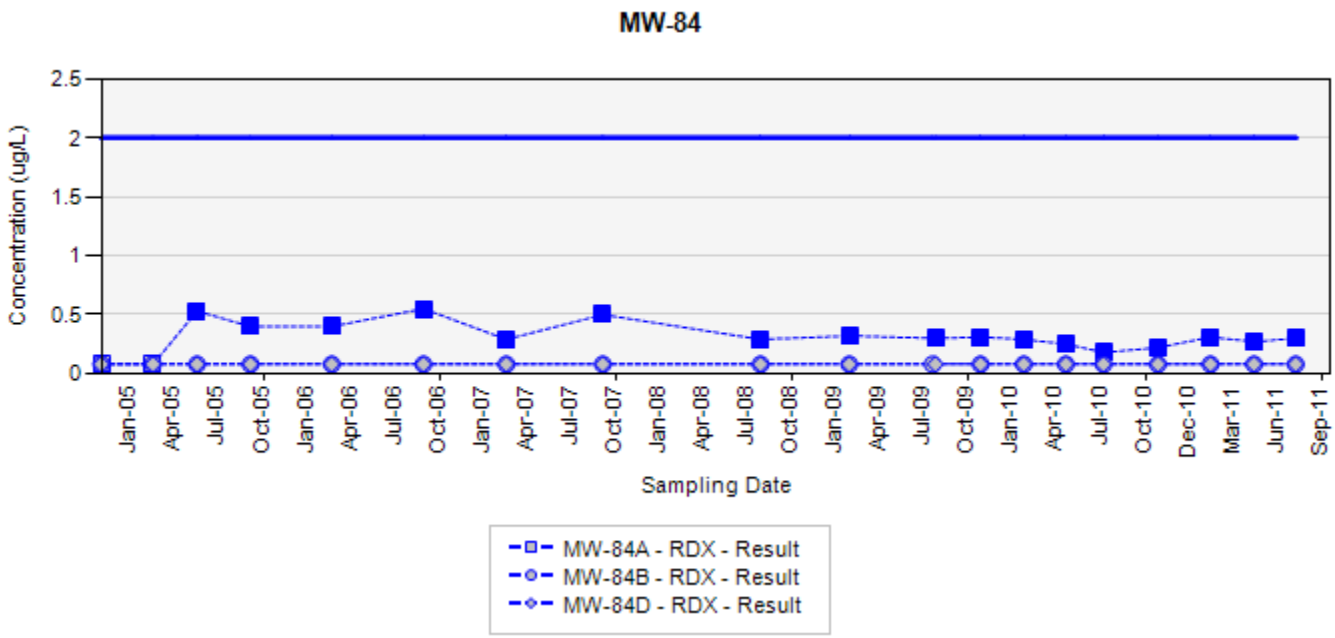

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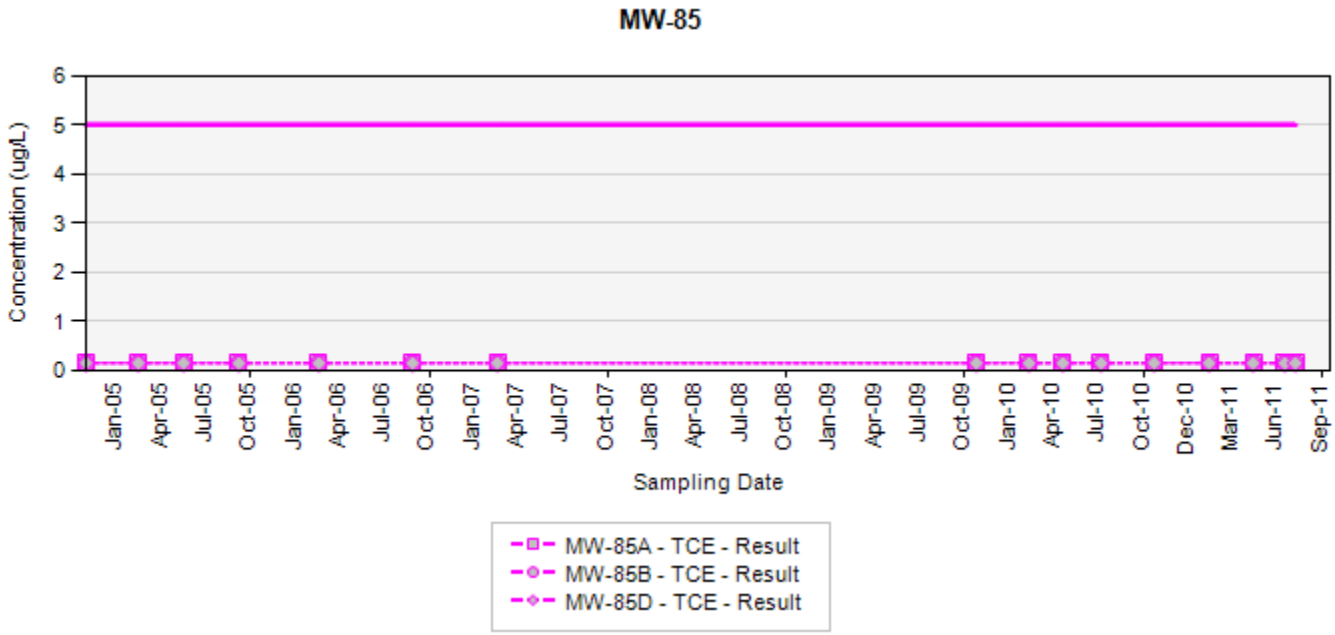

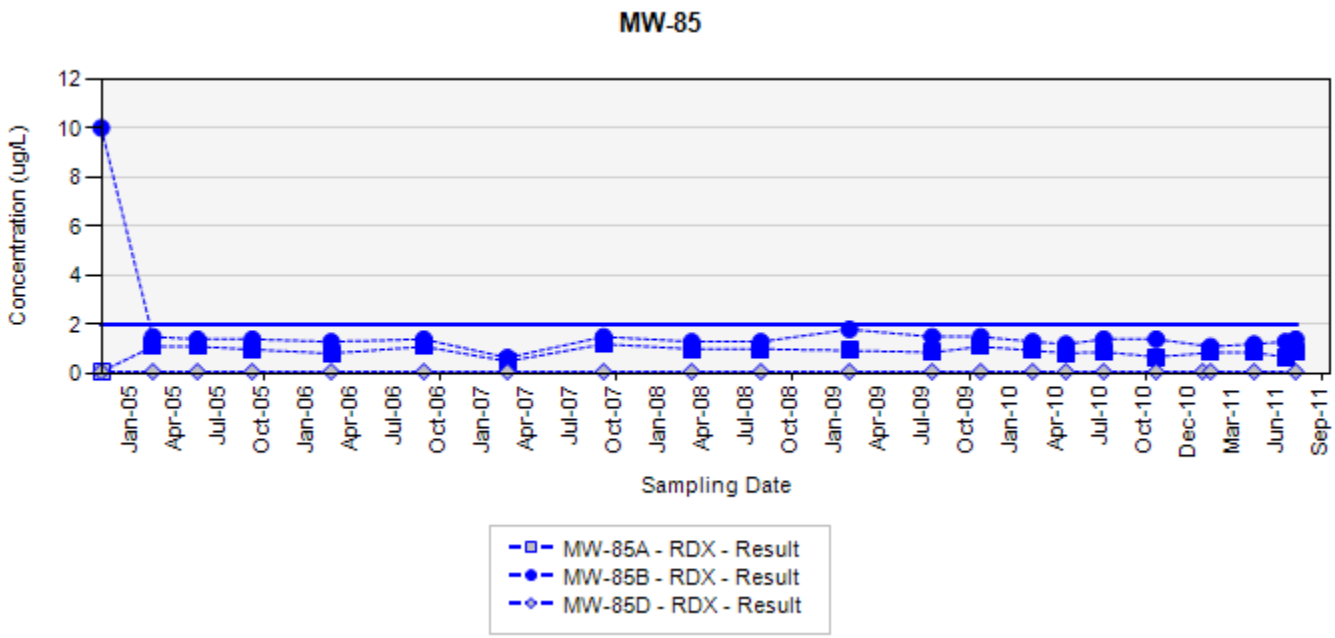

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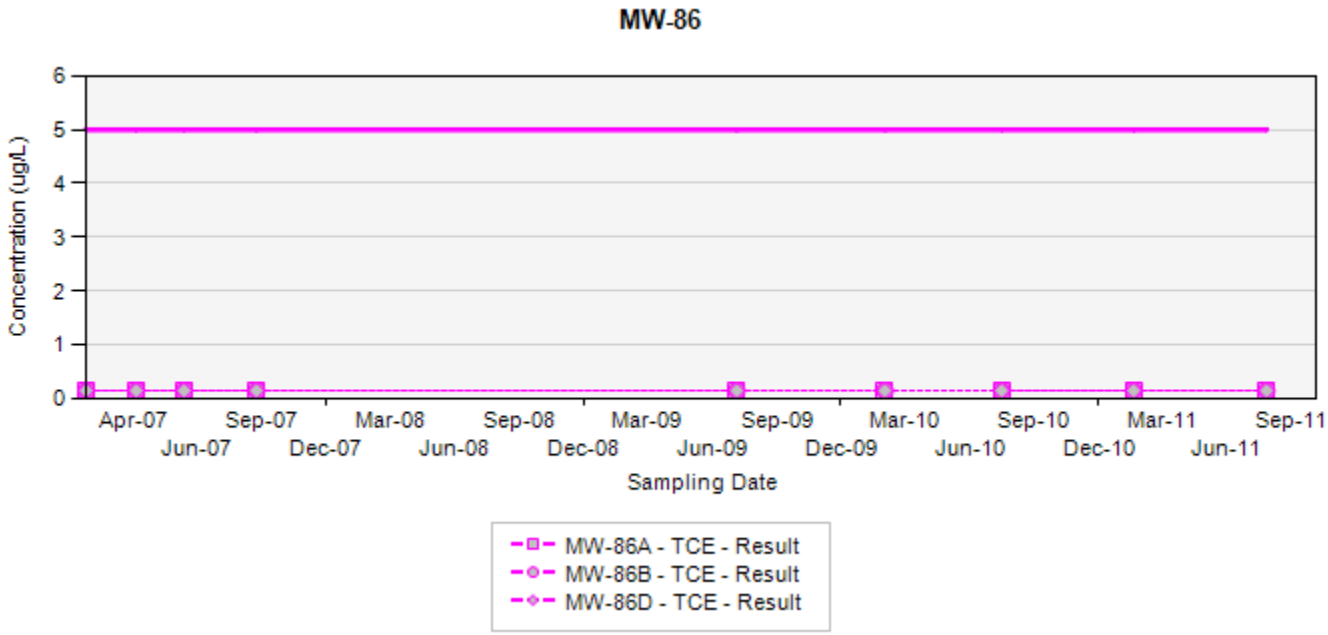

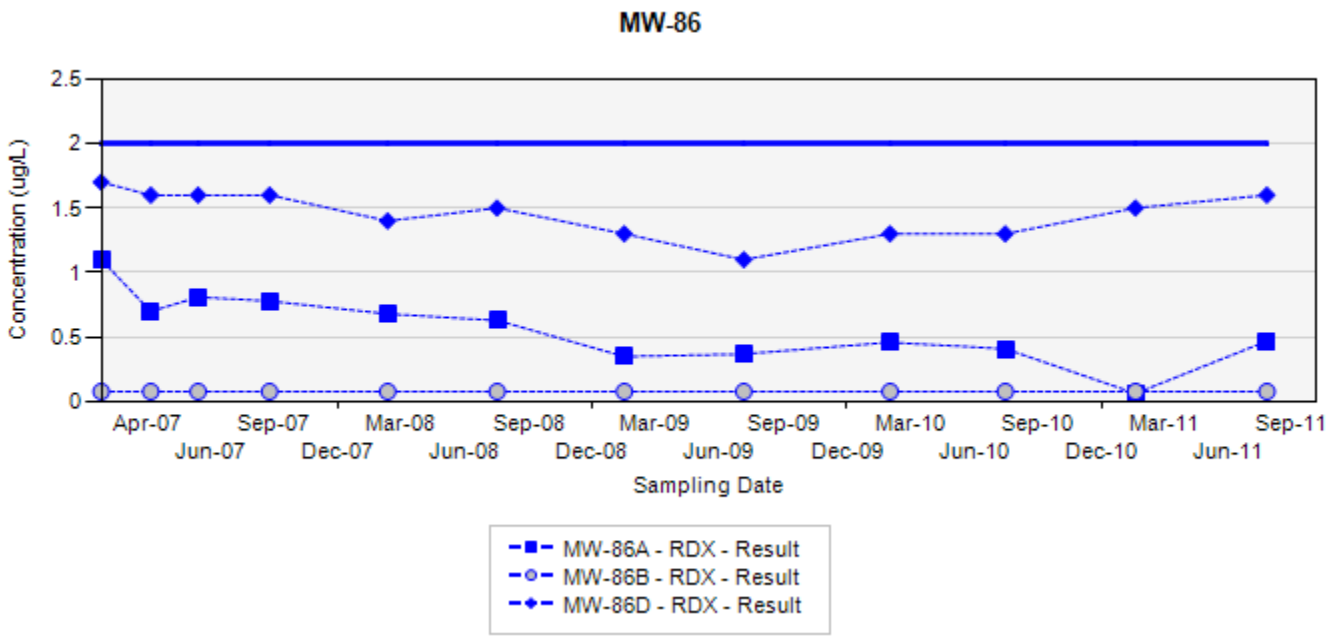

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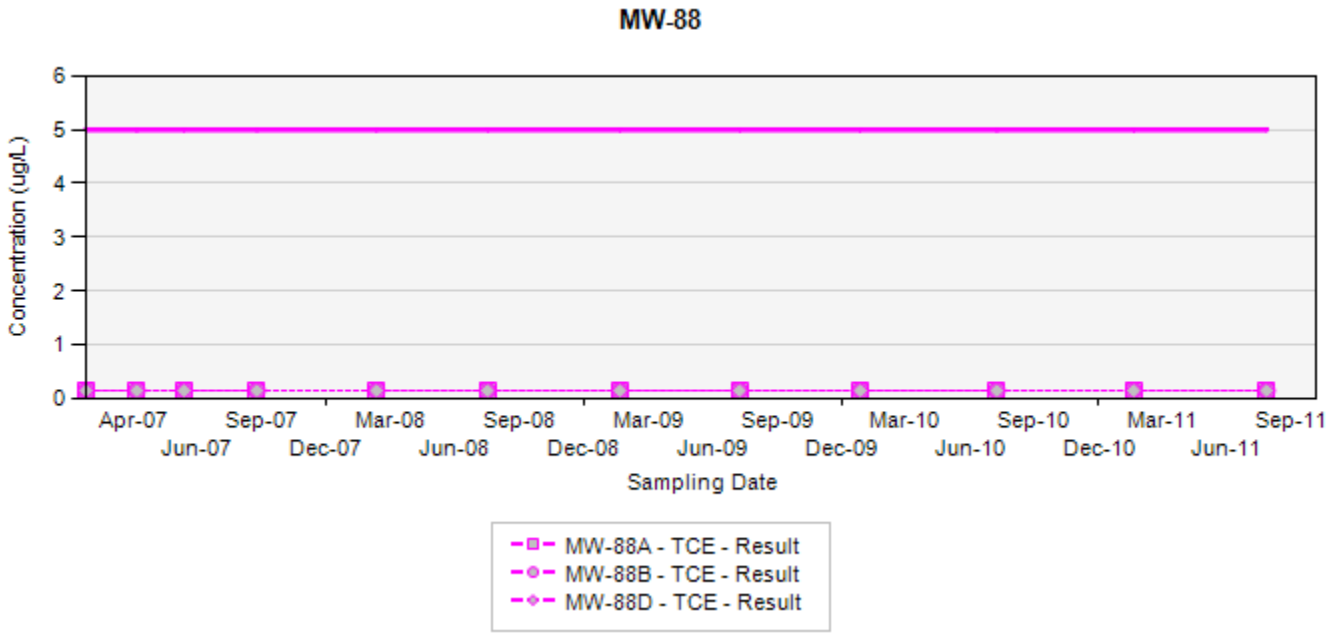

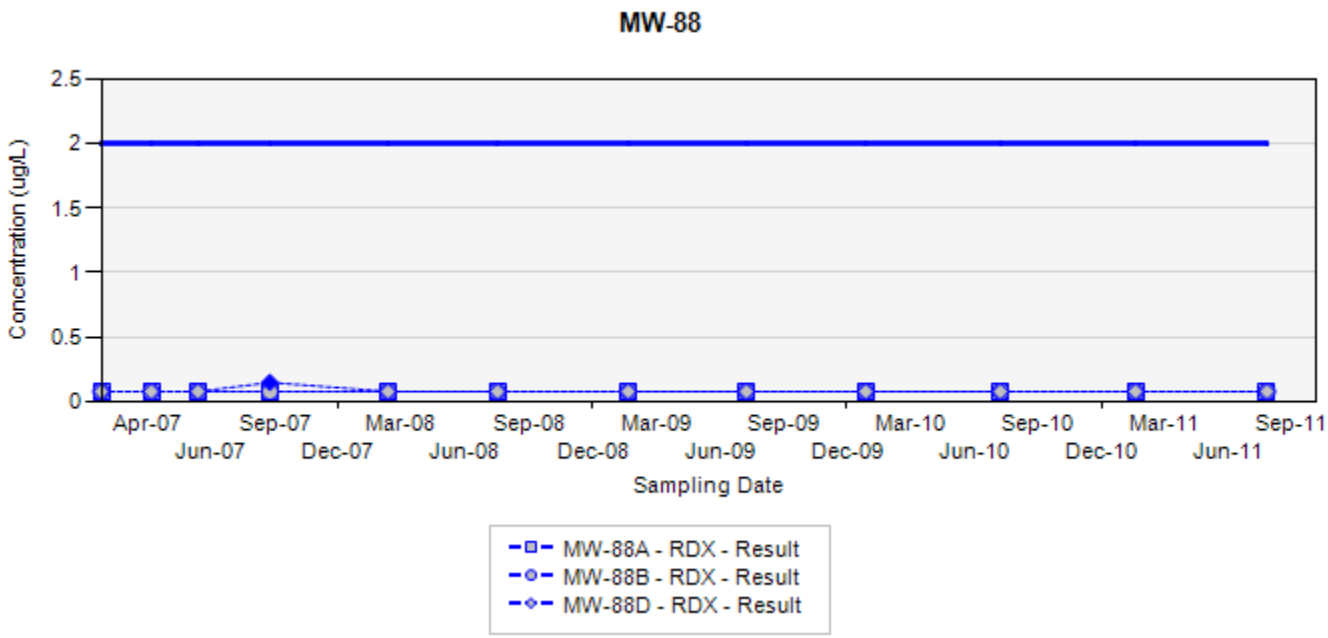

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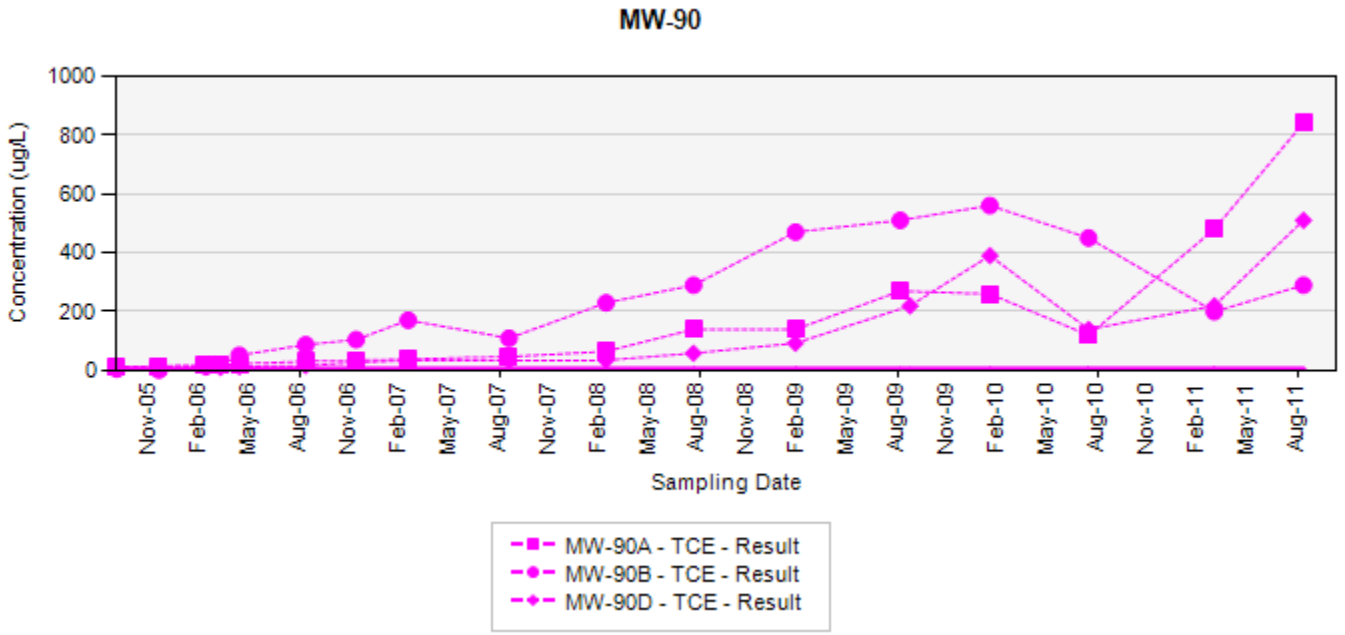

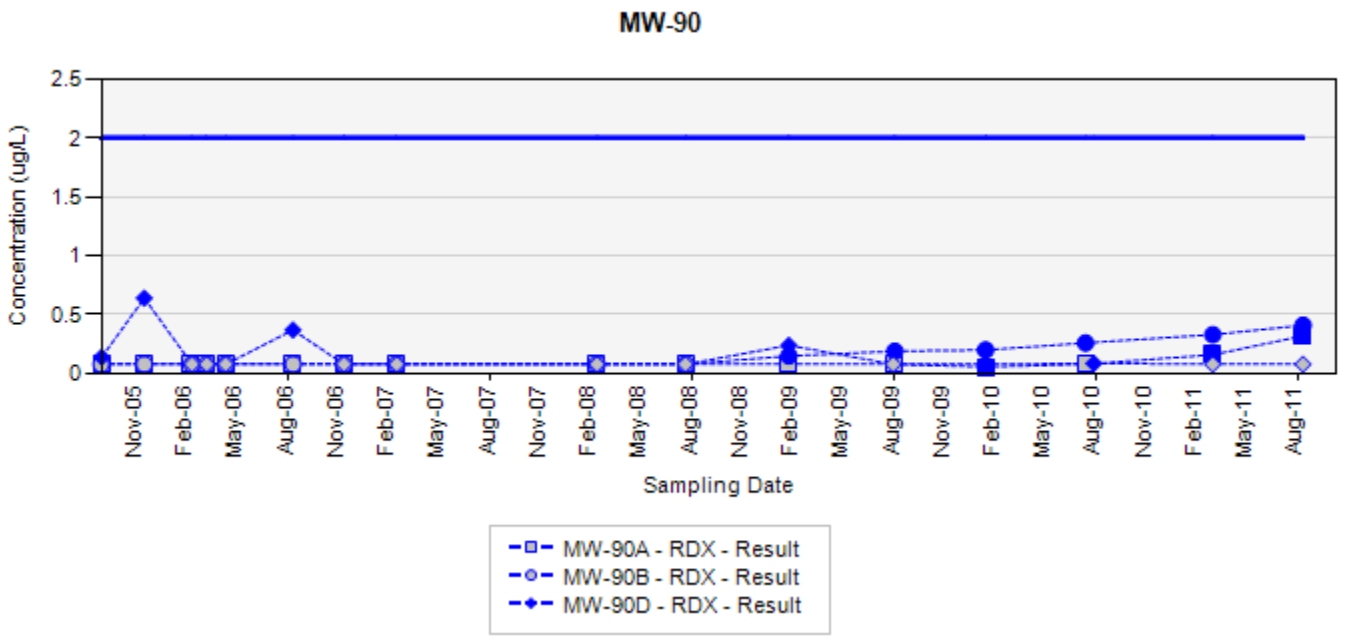

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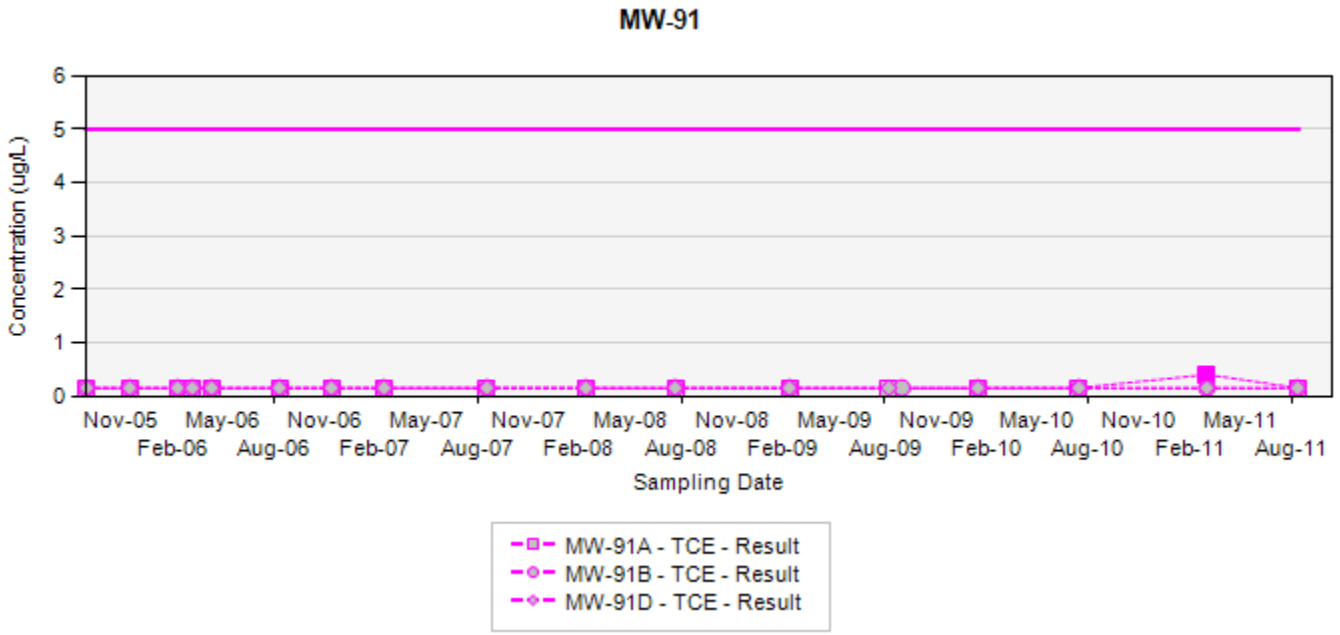

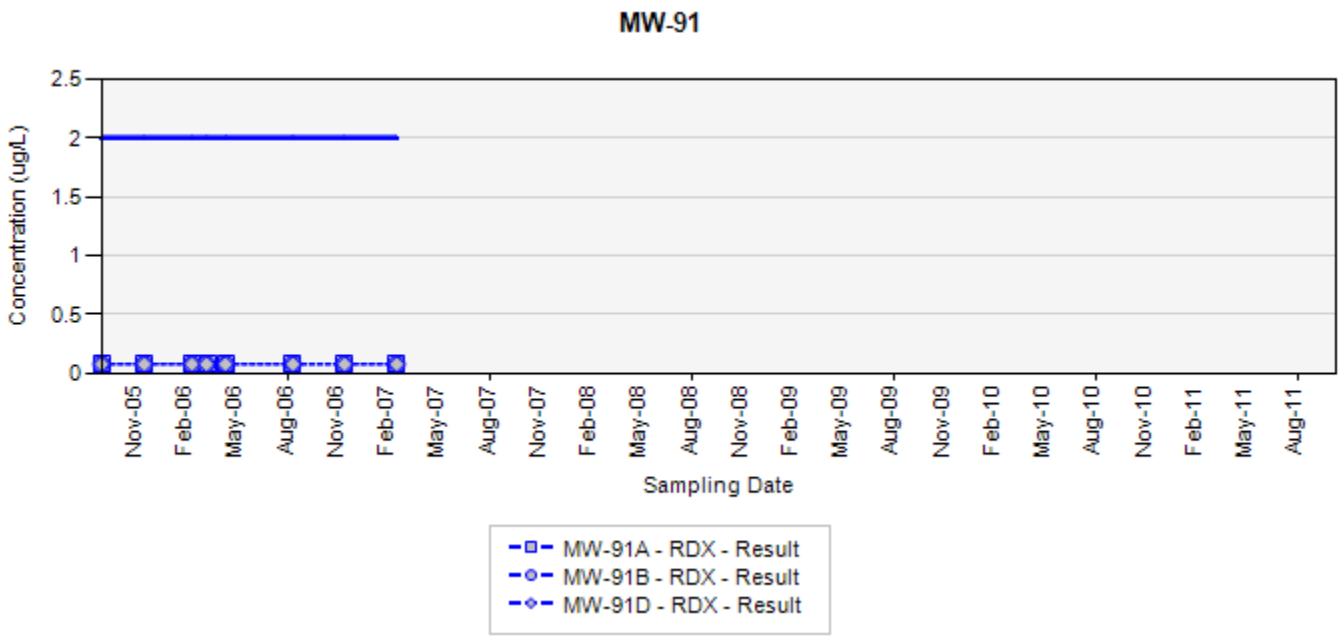

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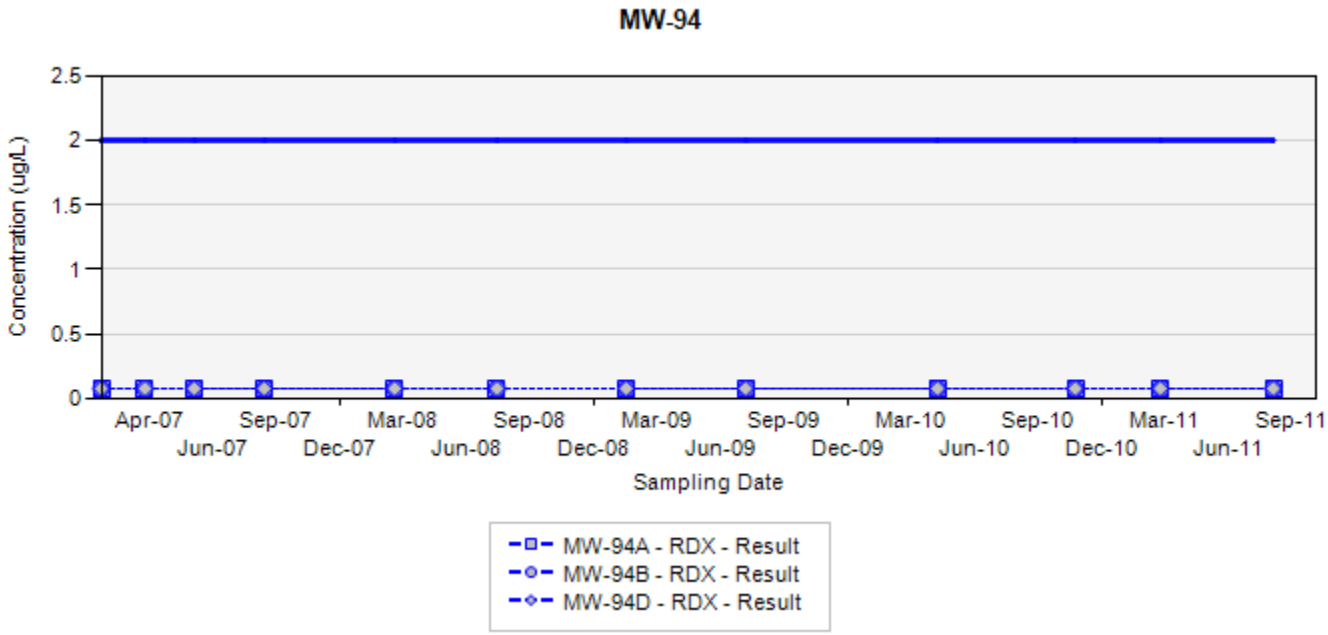

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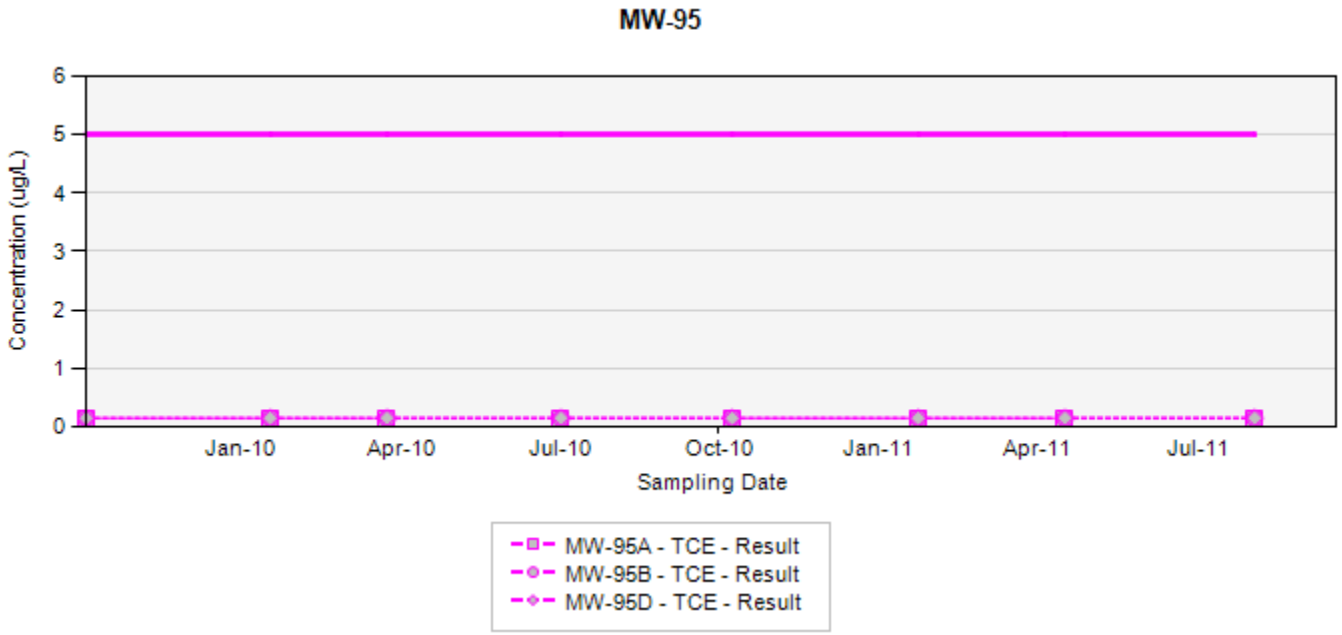

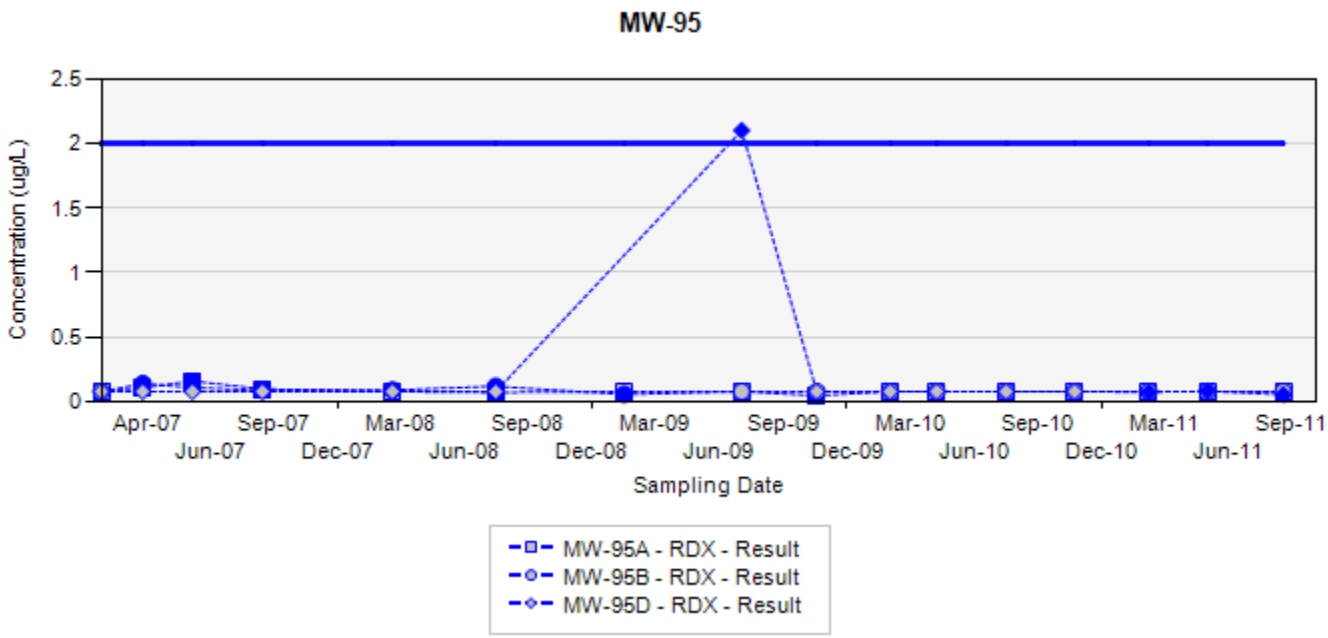

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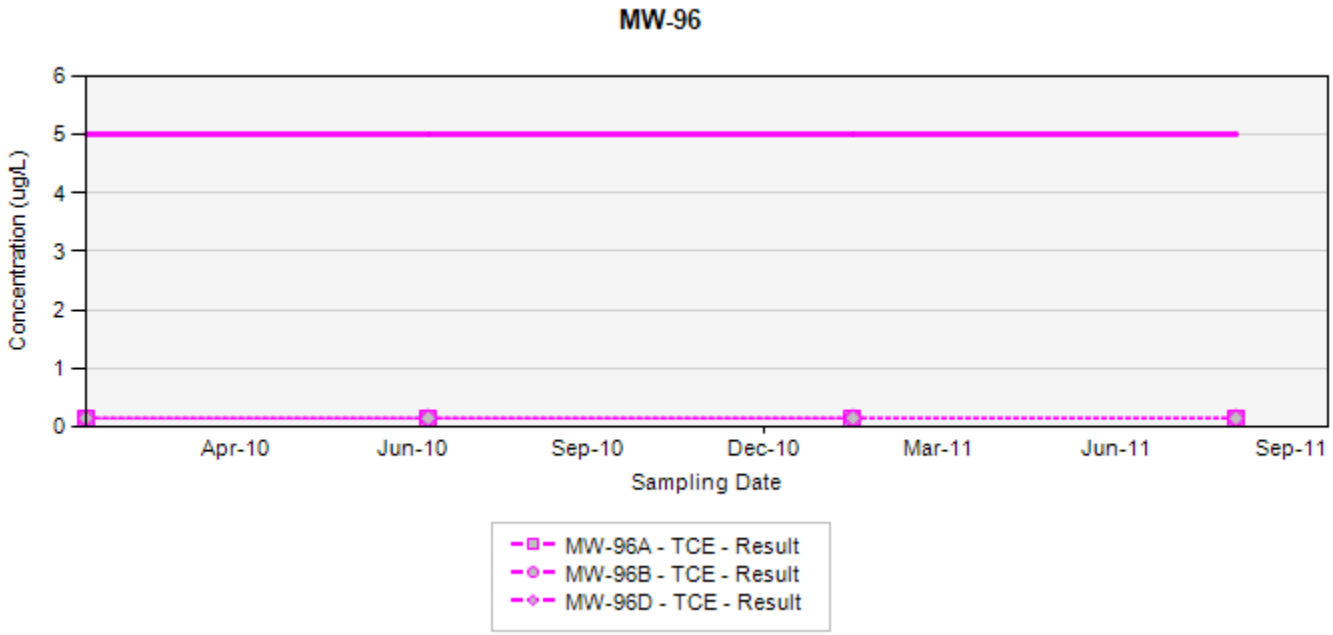

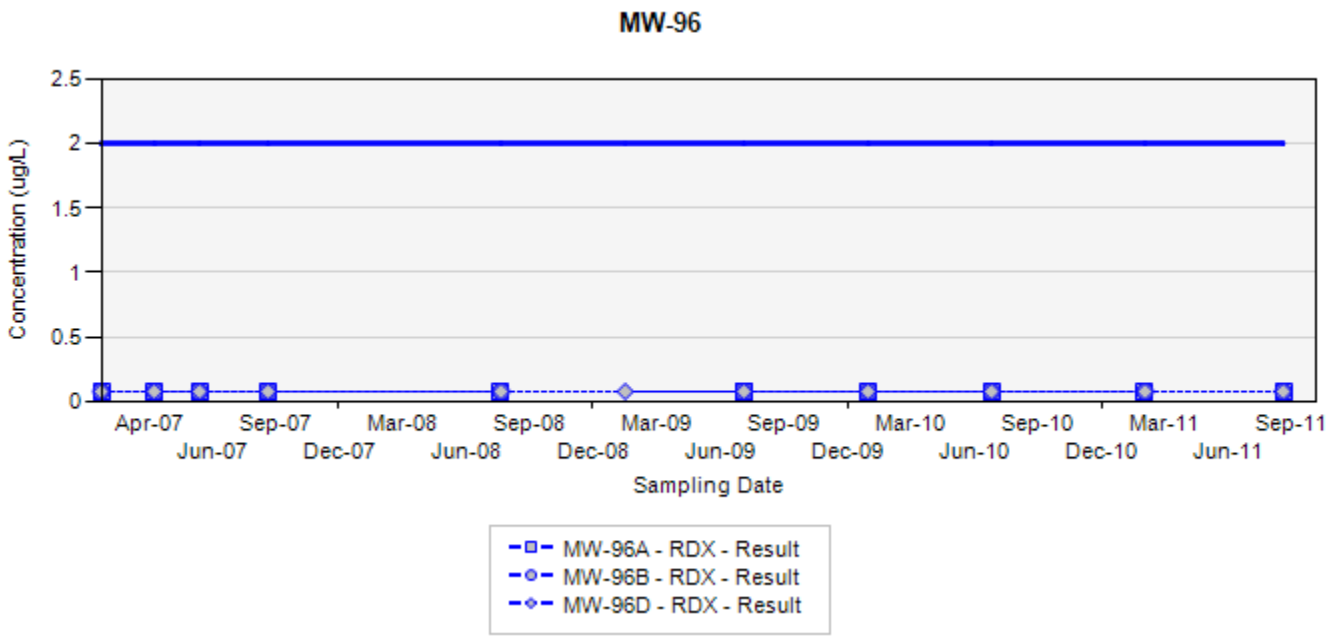

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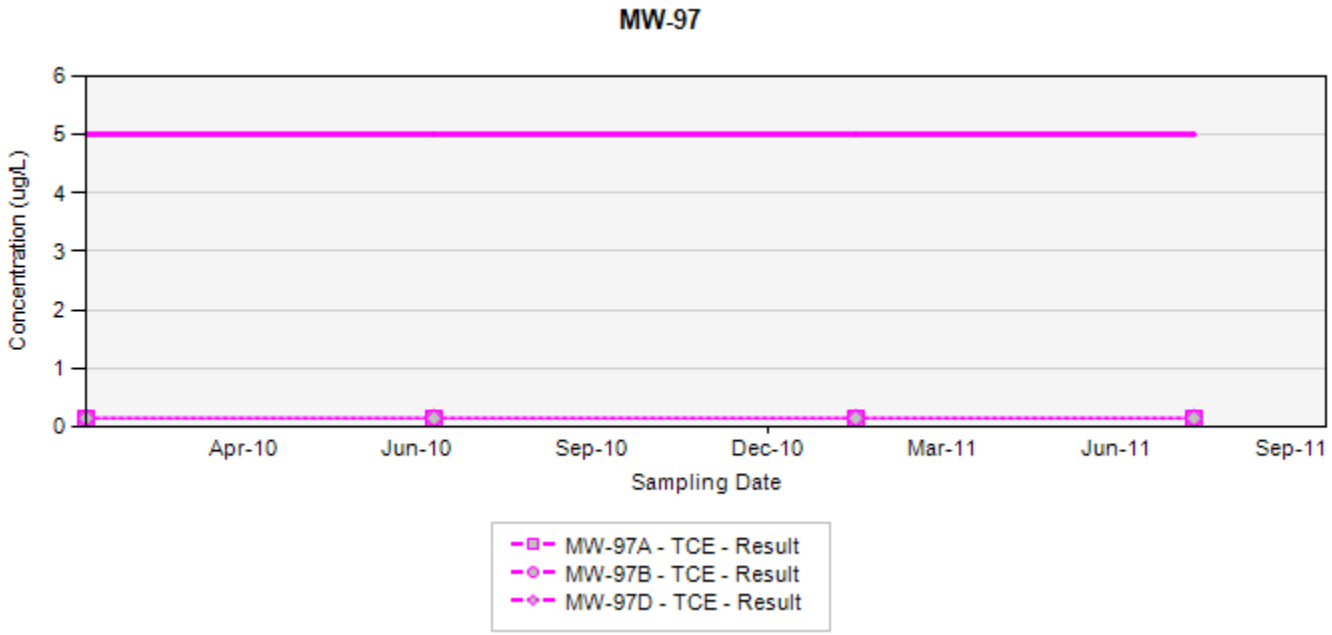

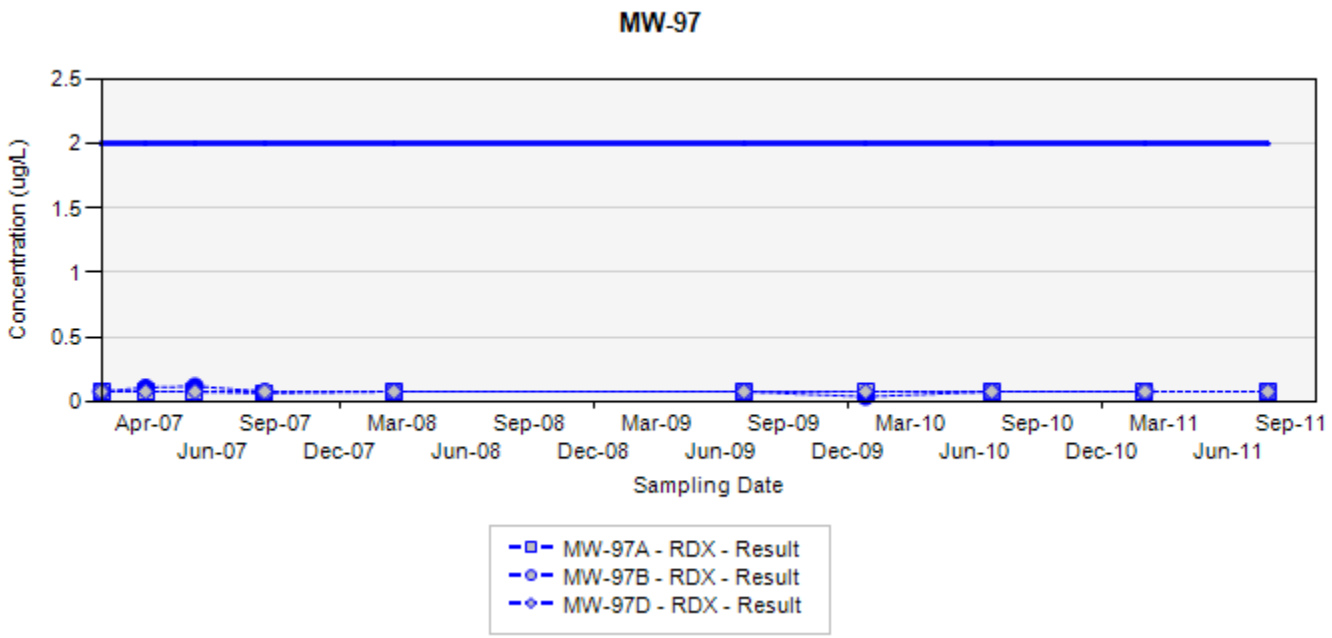

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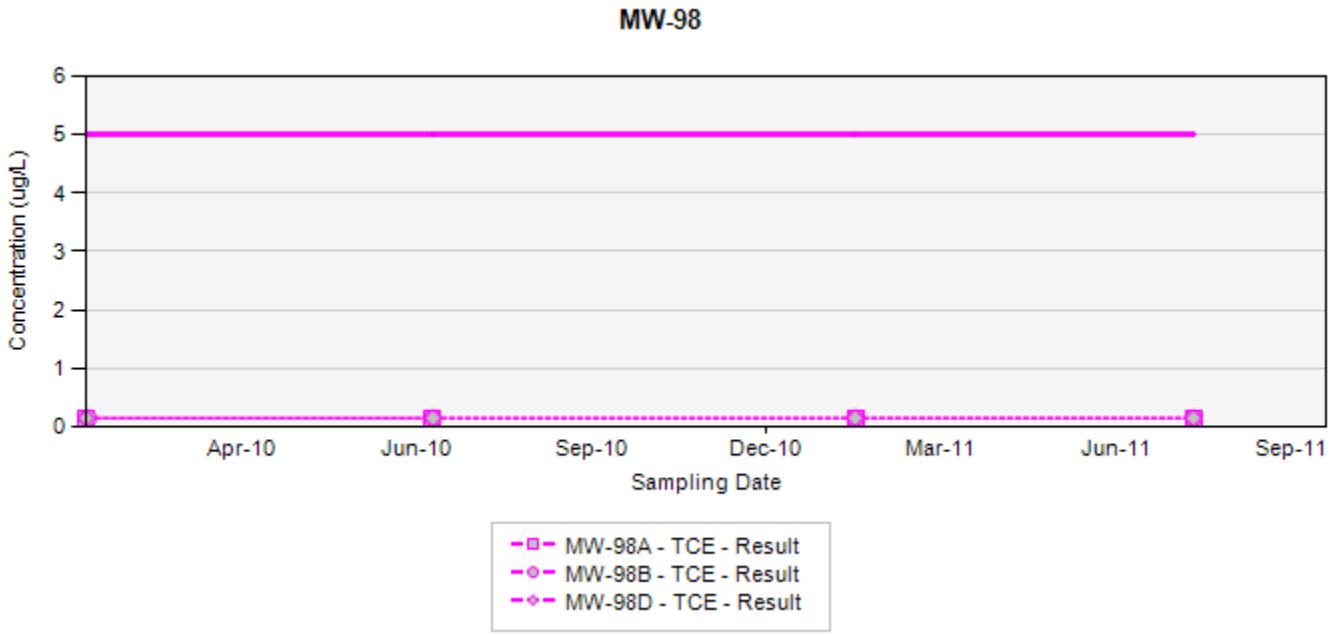

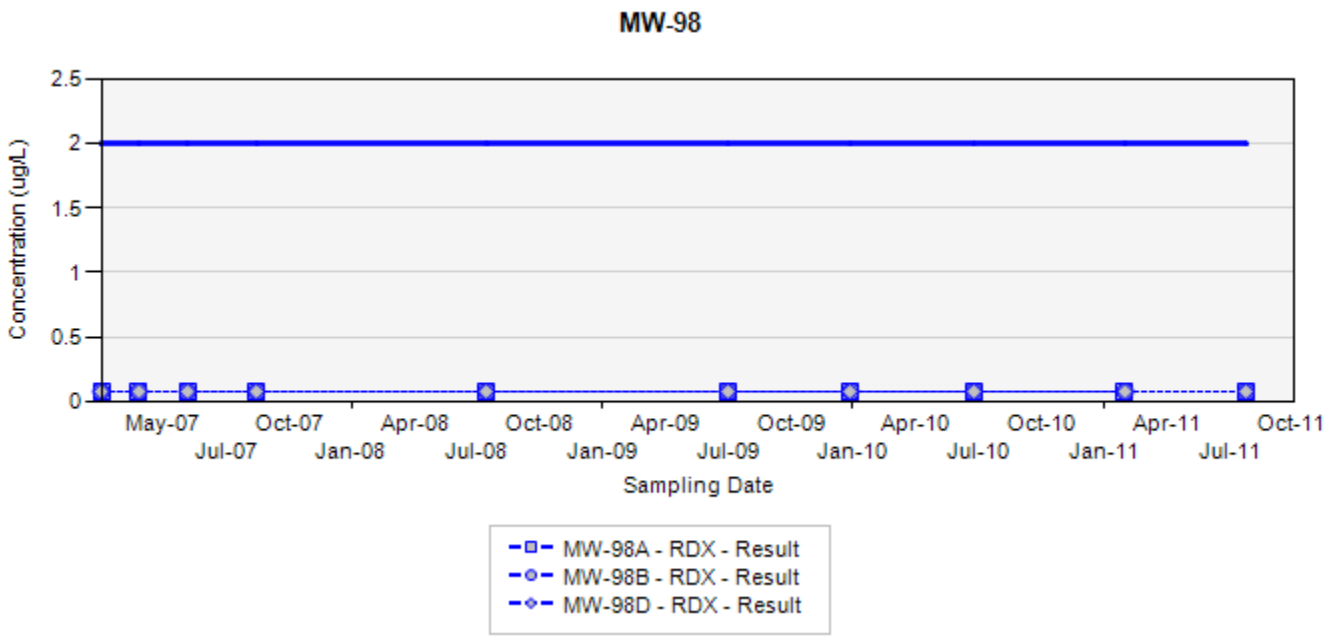

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Appendix B
Concentration Trend Charts for Select Water Supply Wells

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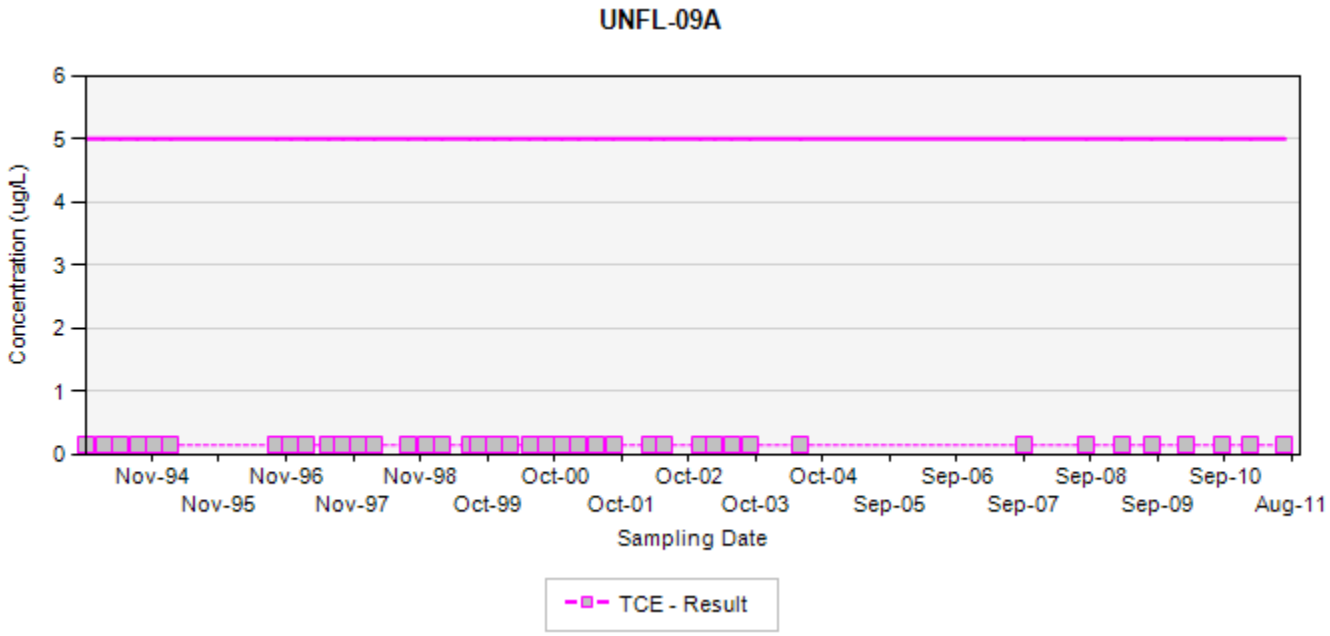

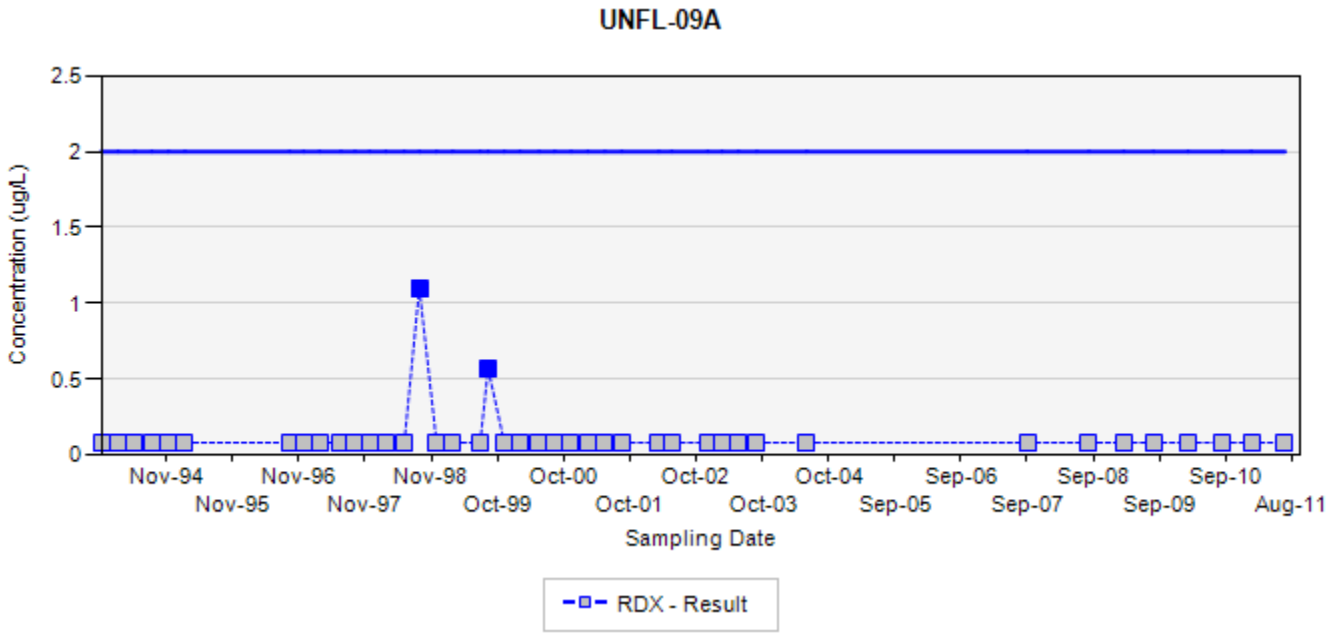

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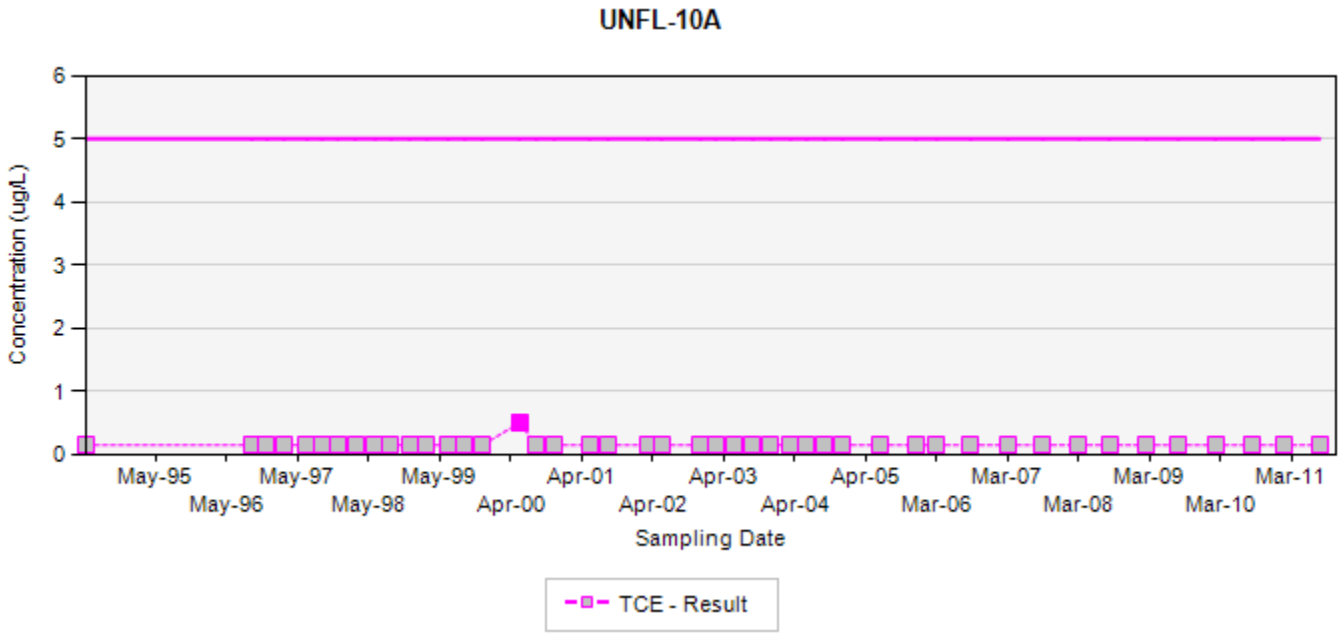

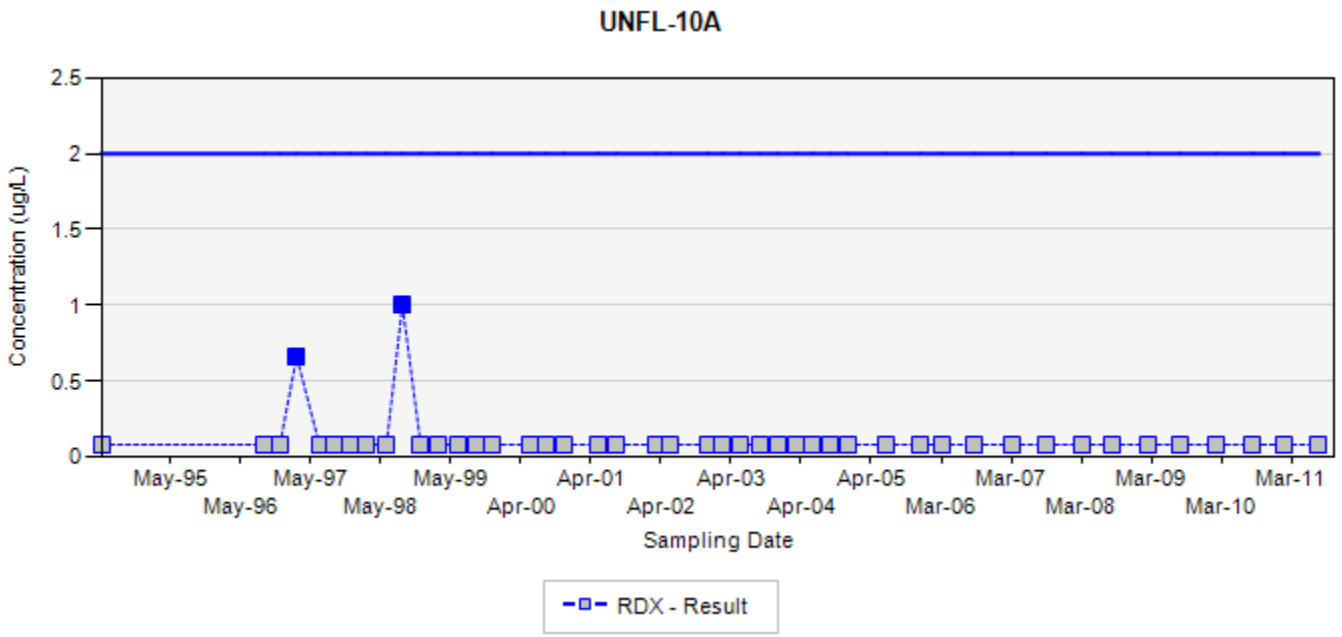

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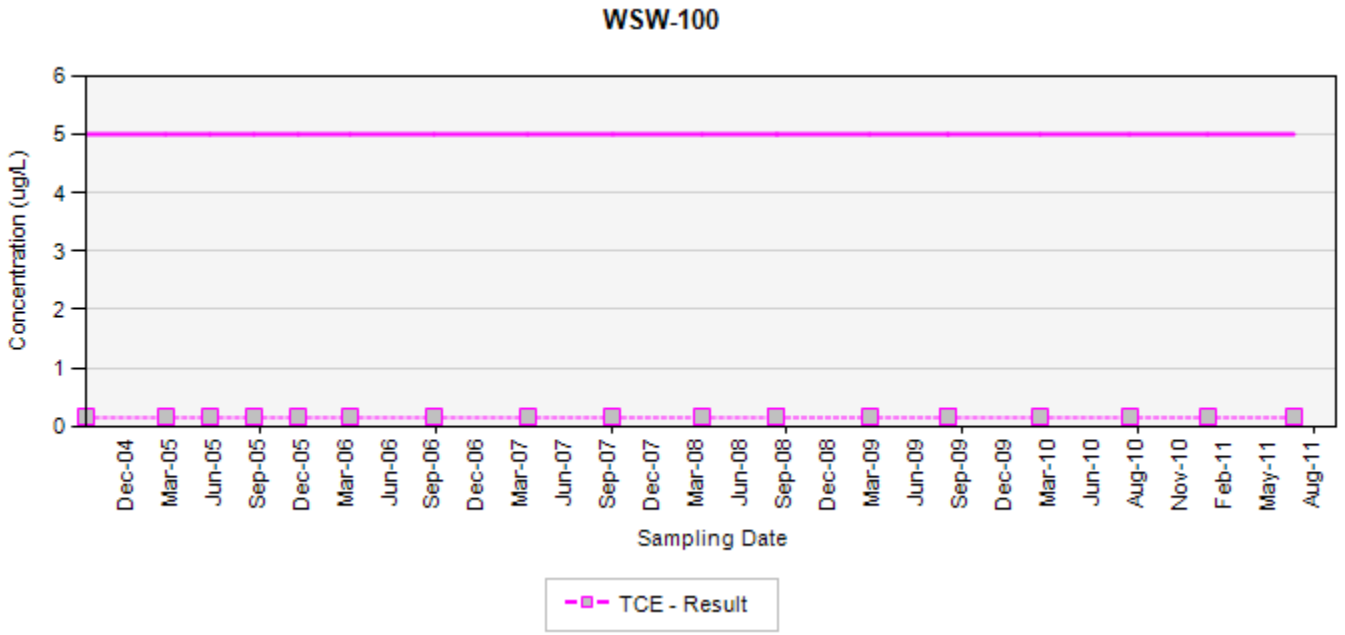

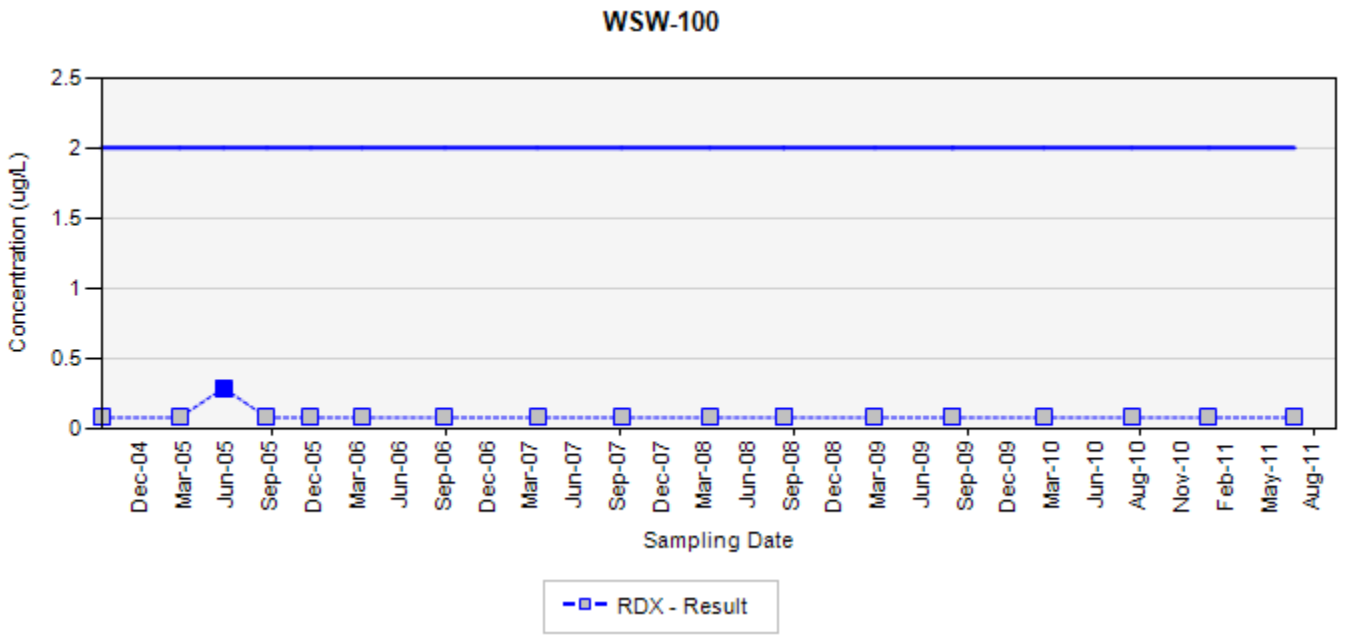

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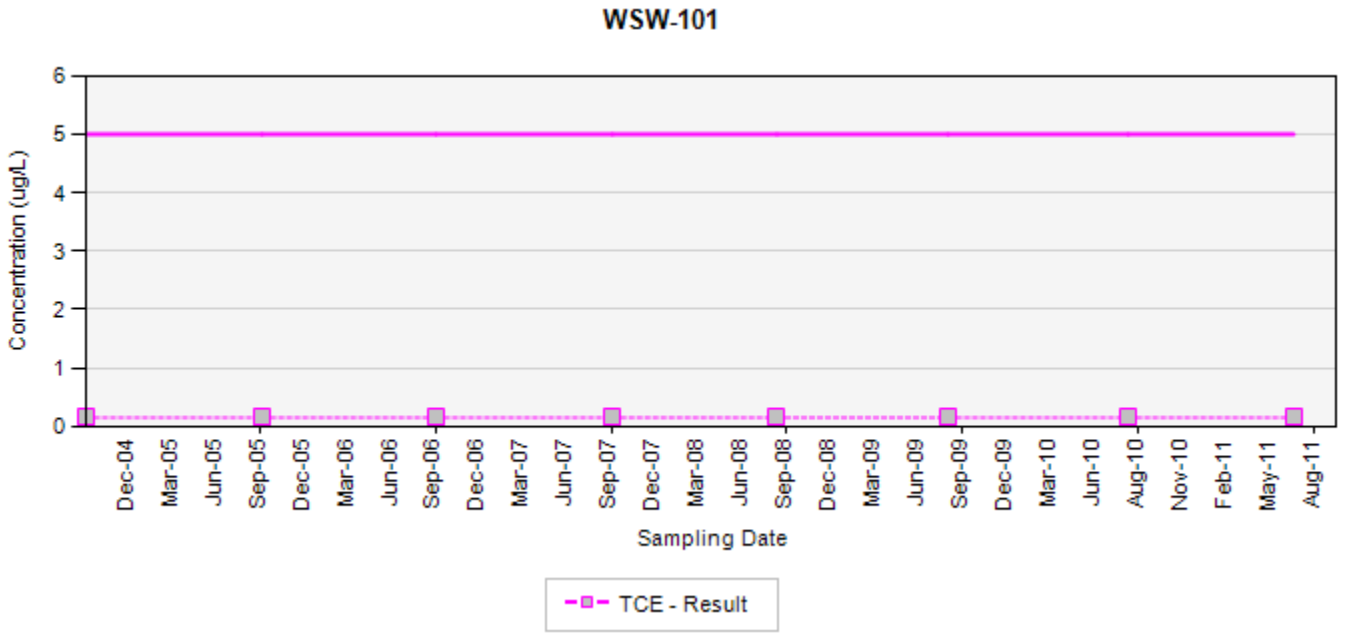

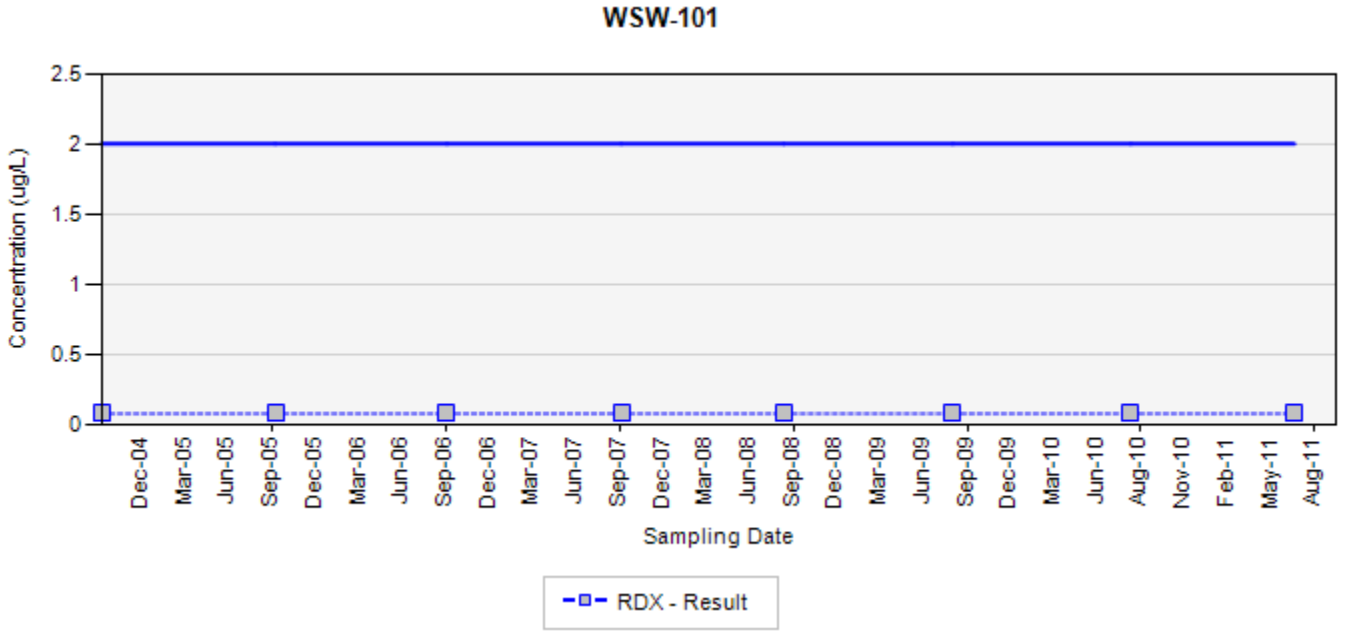

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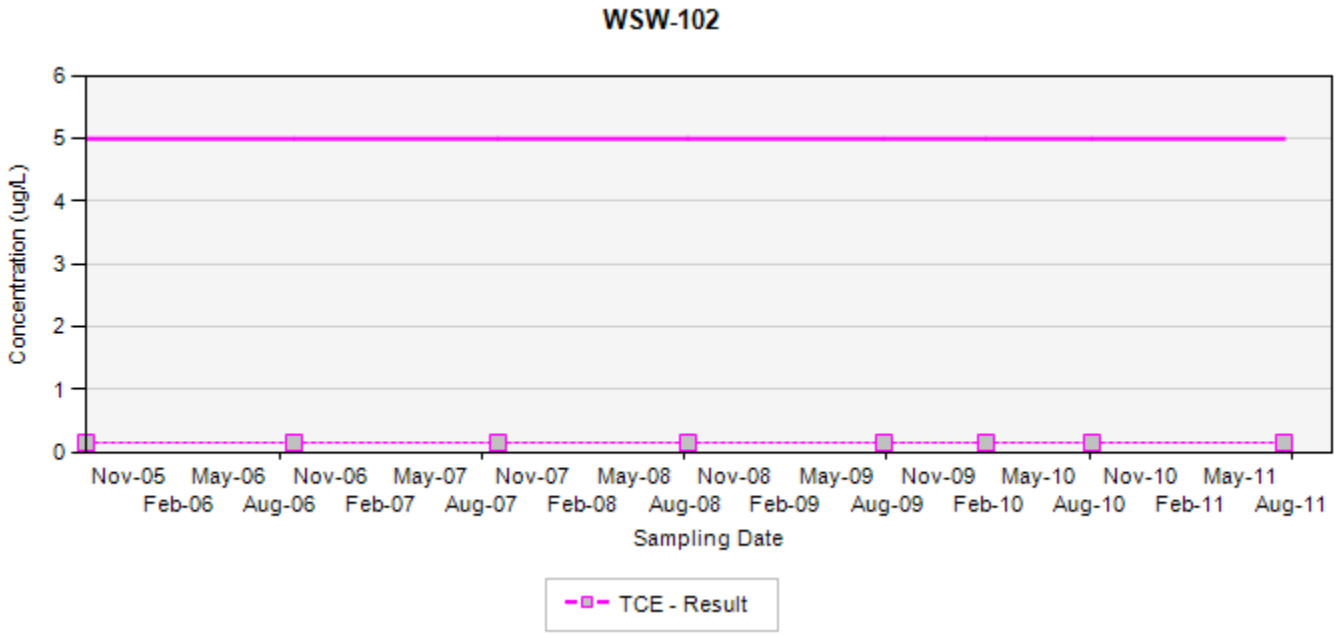

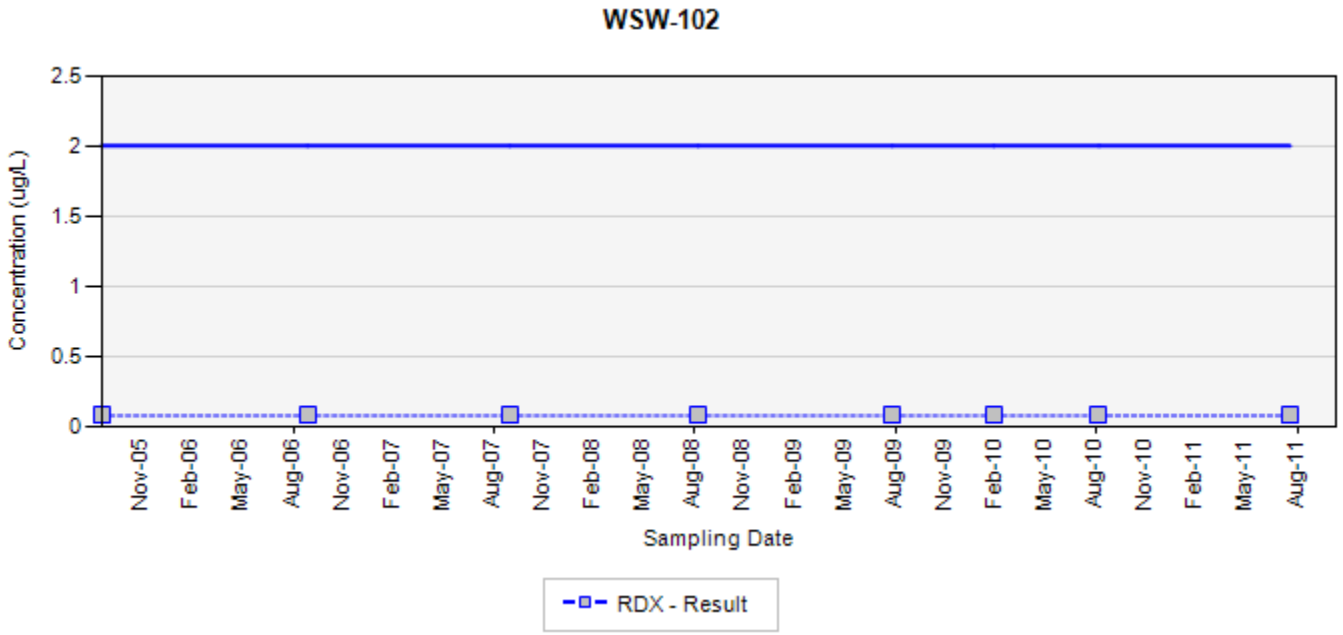

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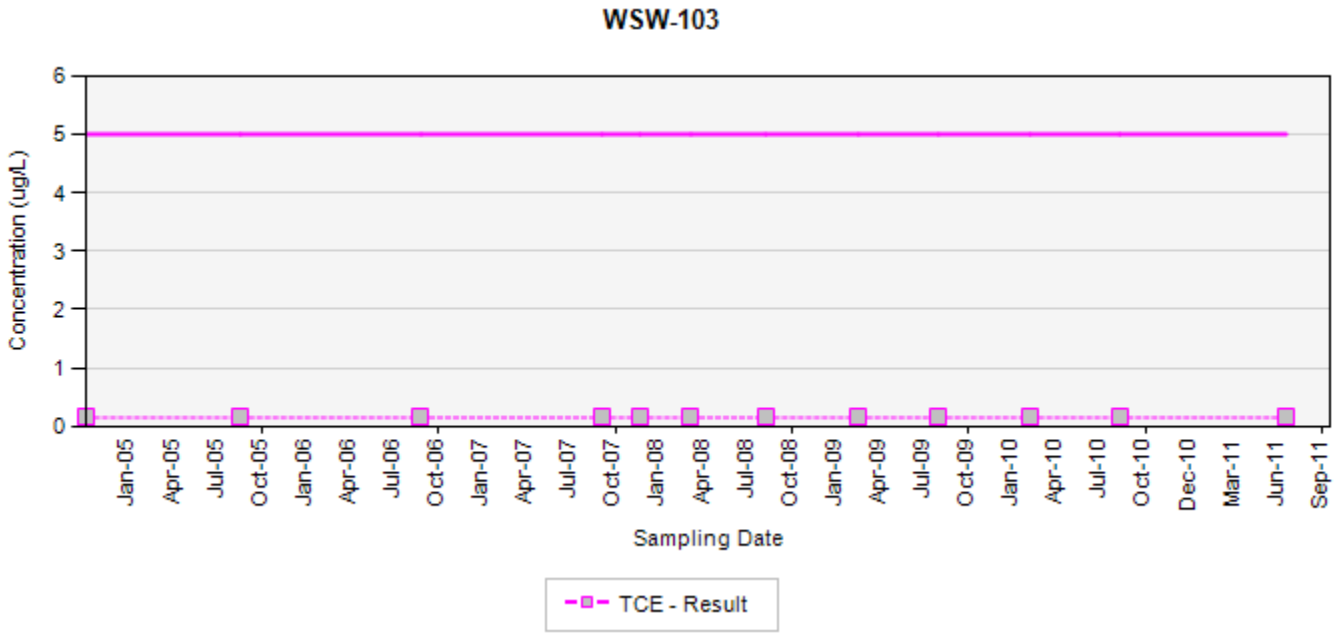

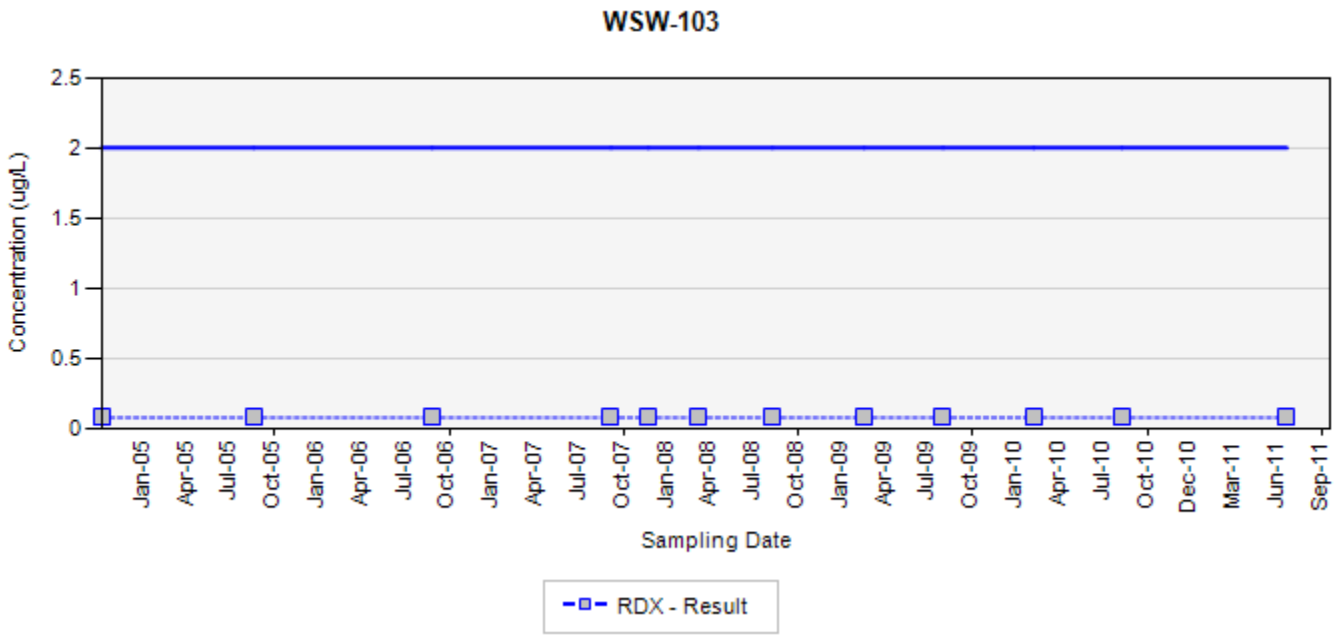

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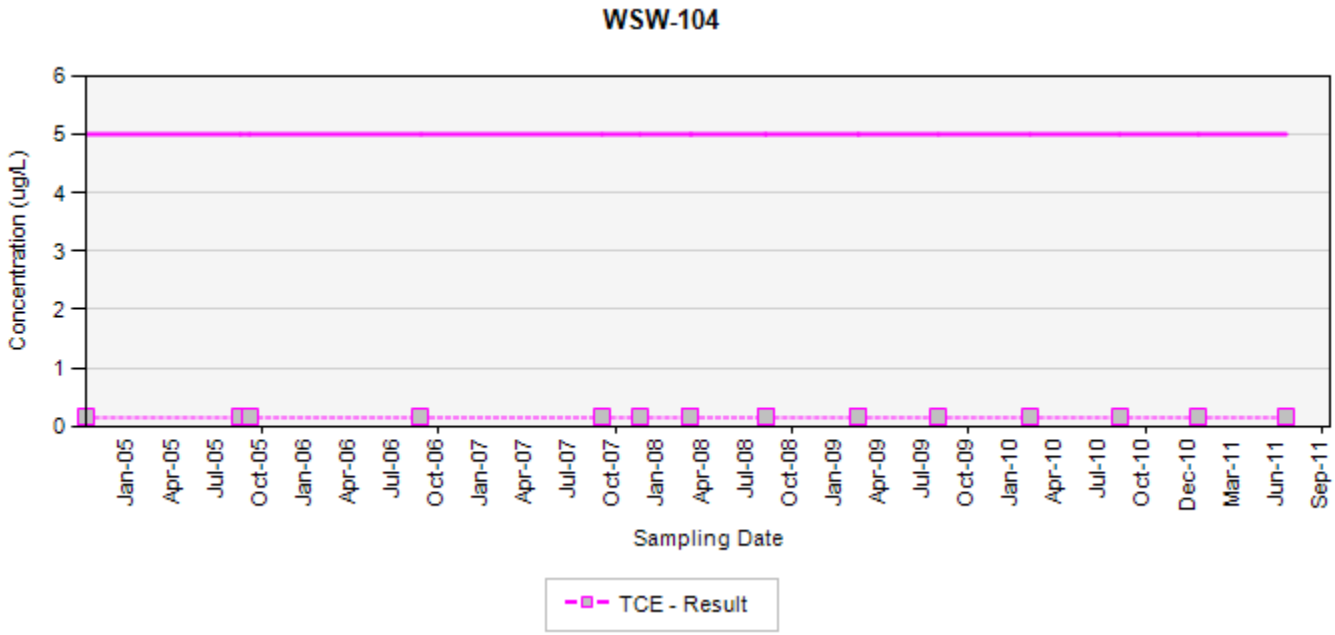

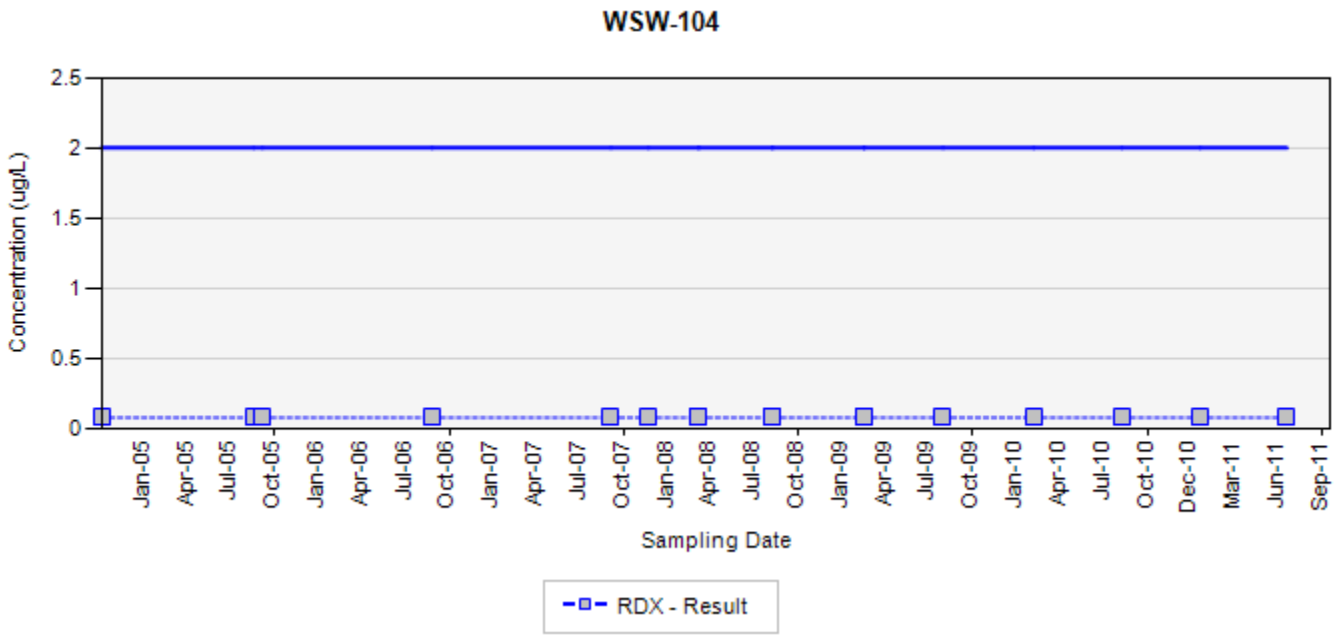

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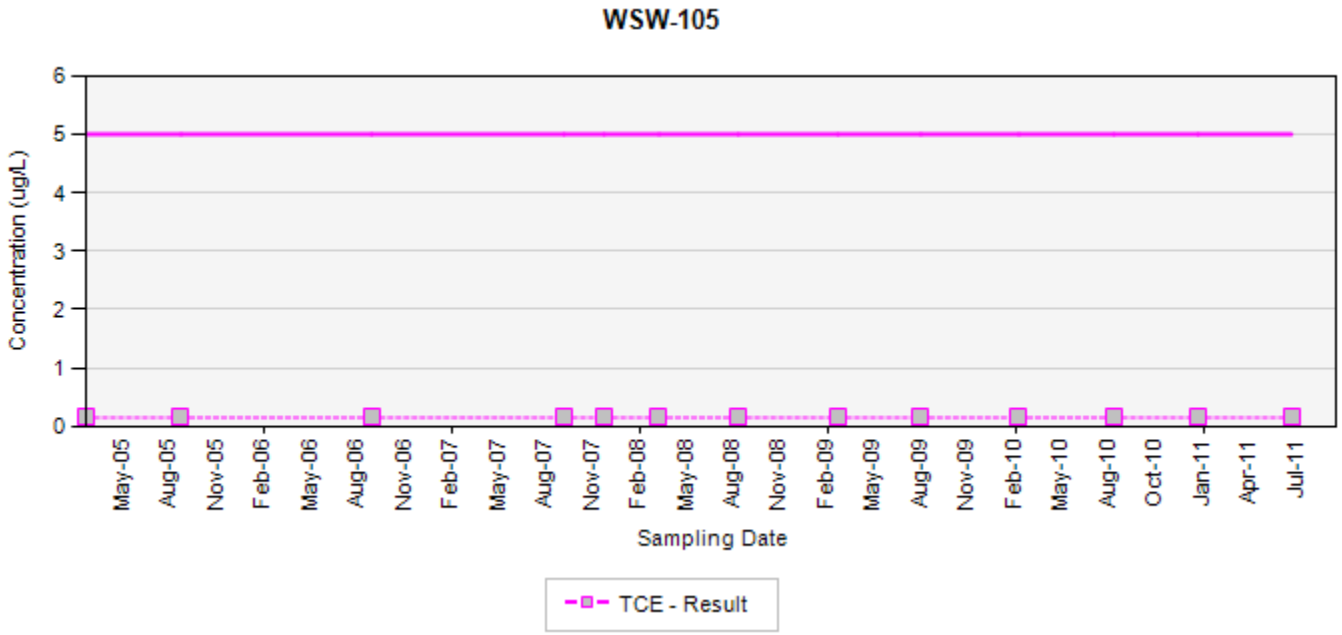

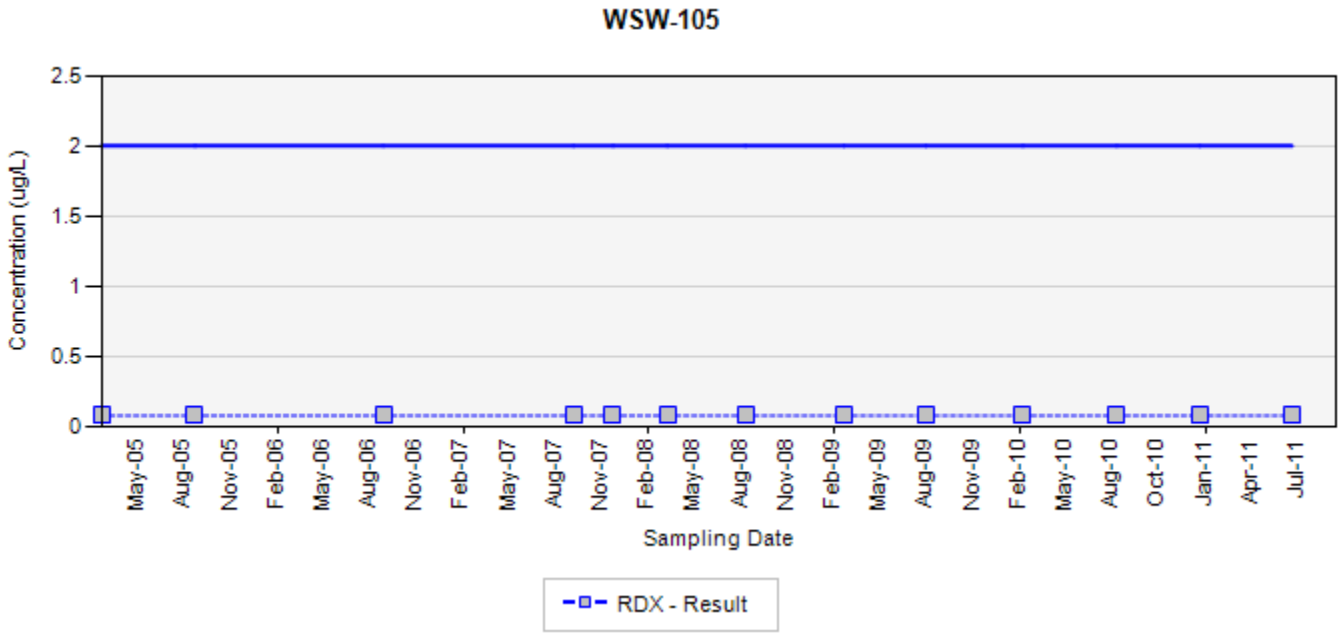

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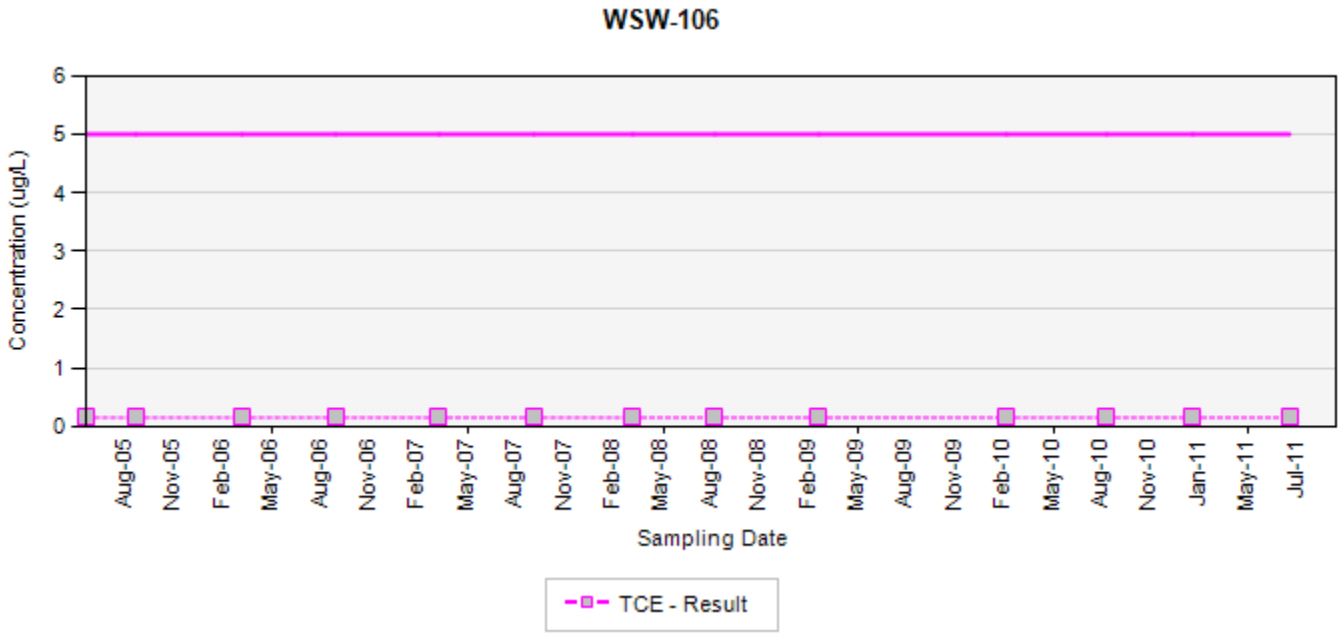

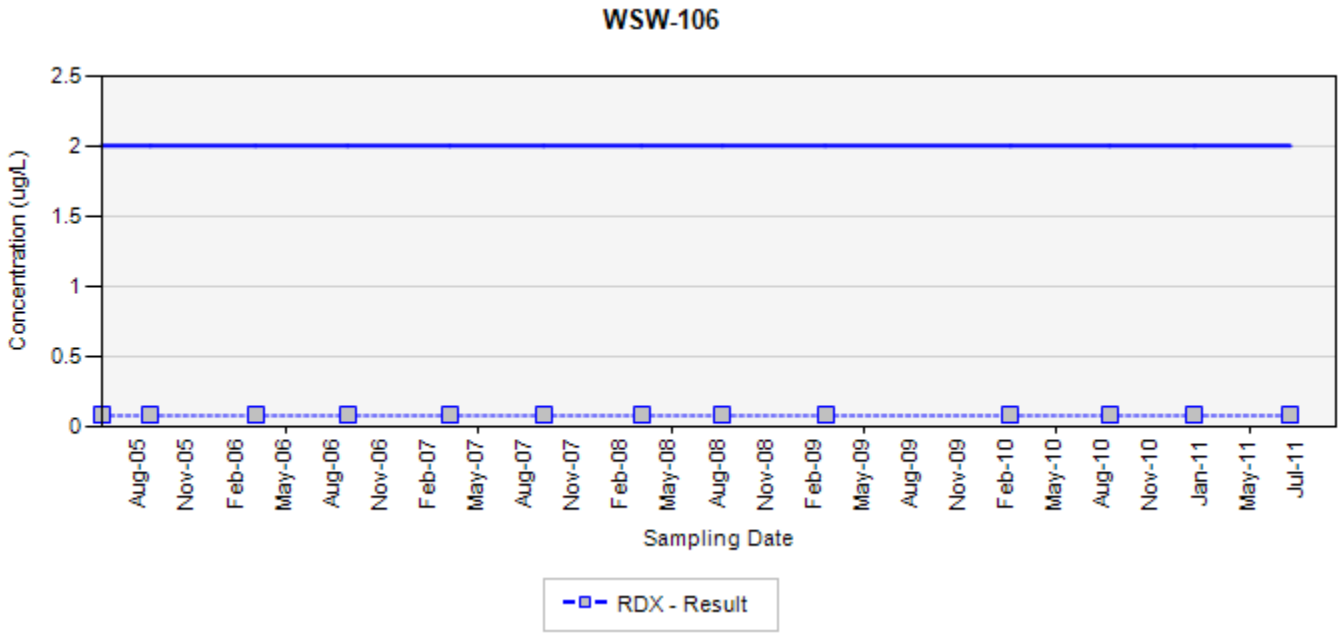

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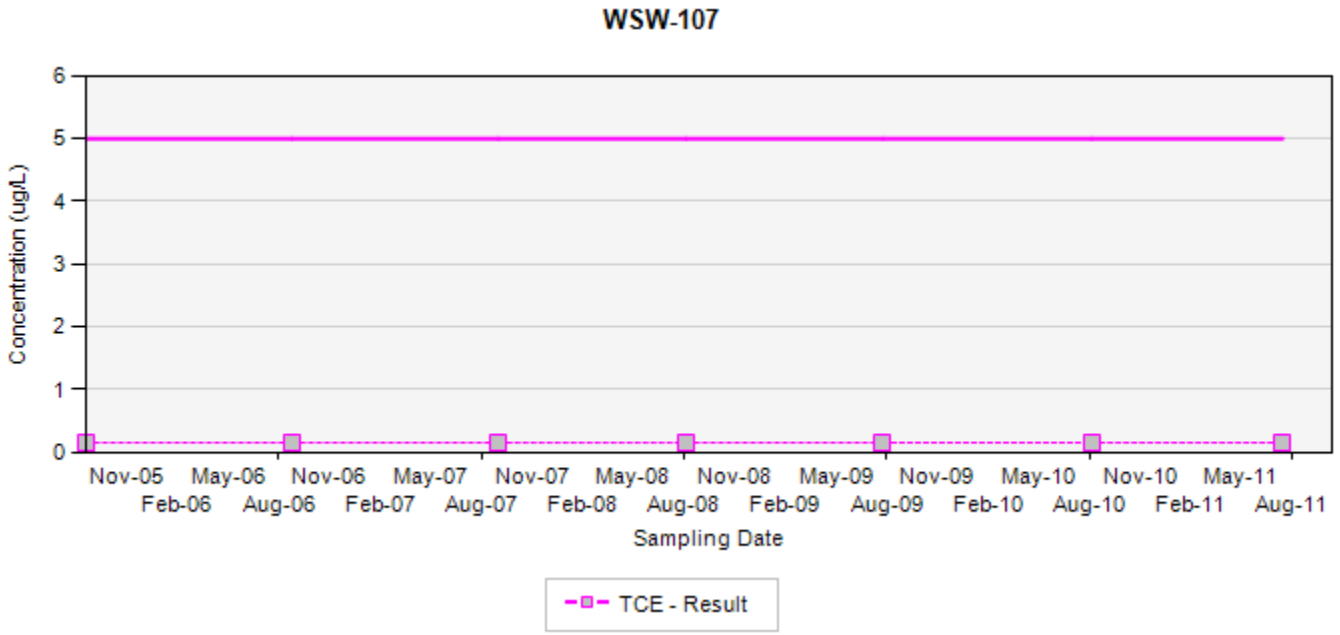

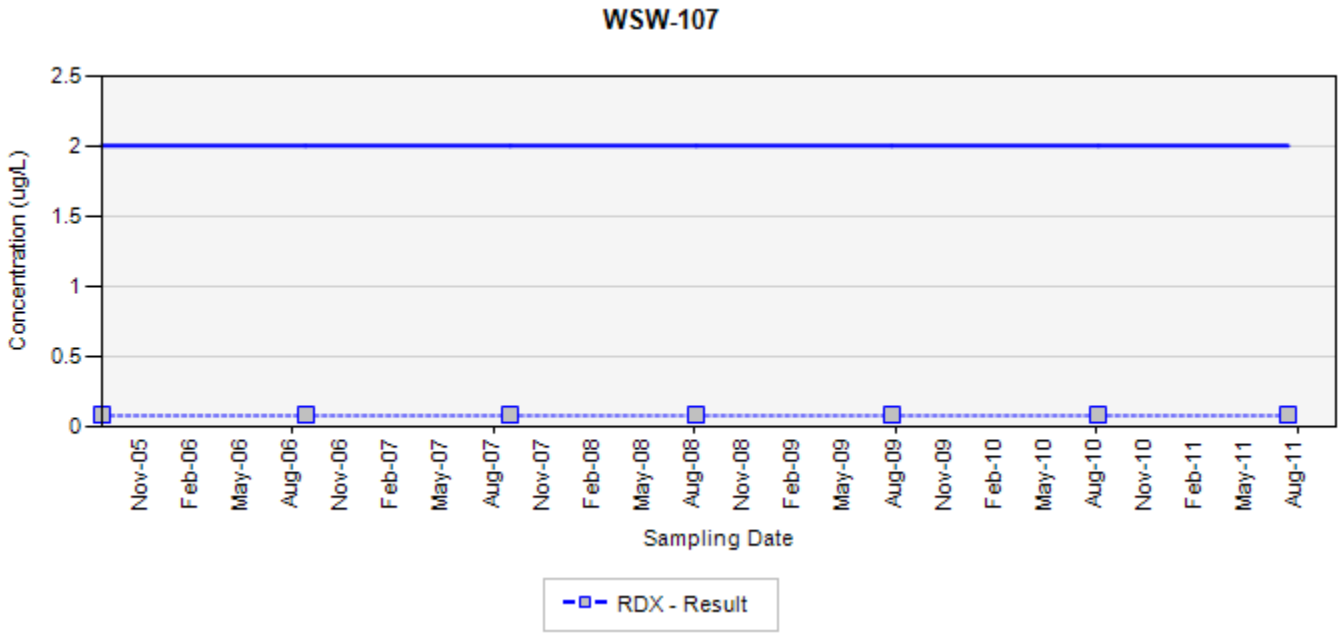

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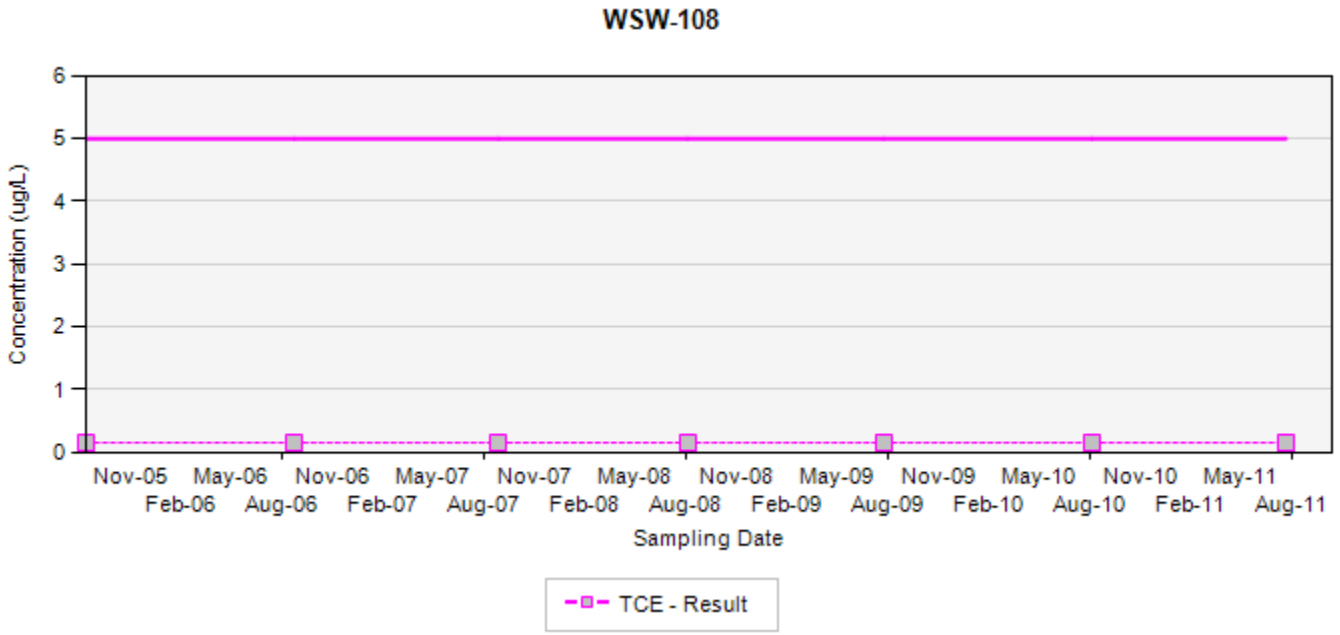

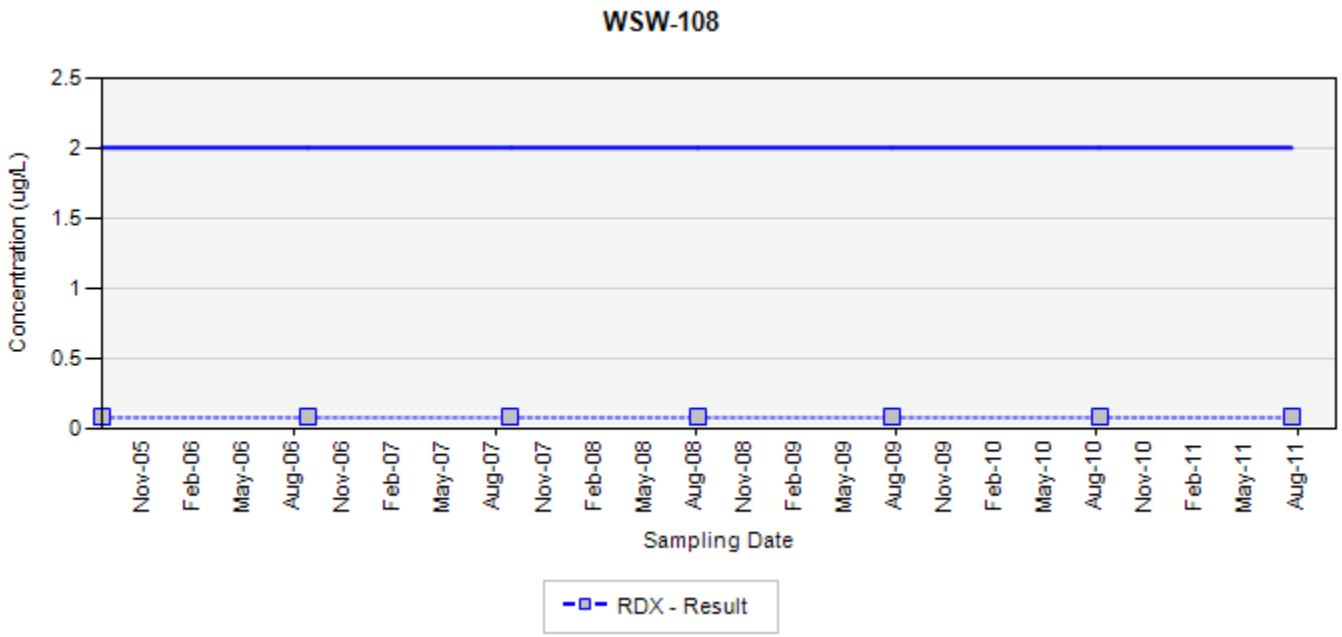

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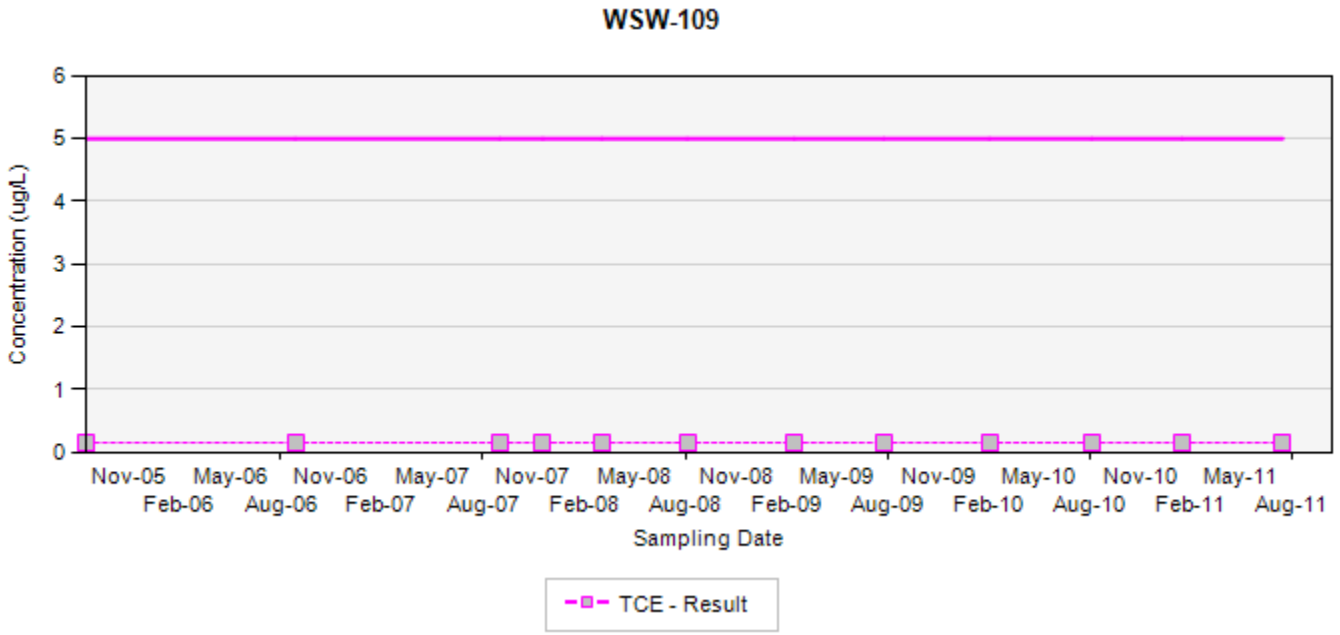

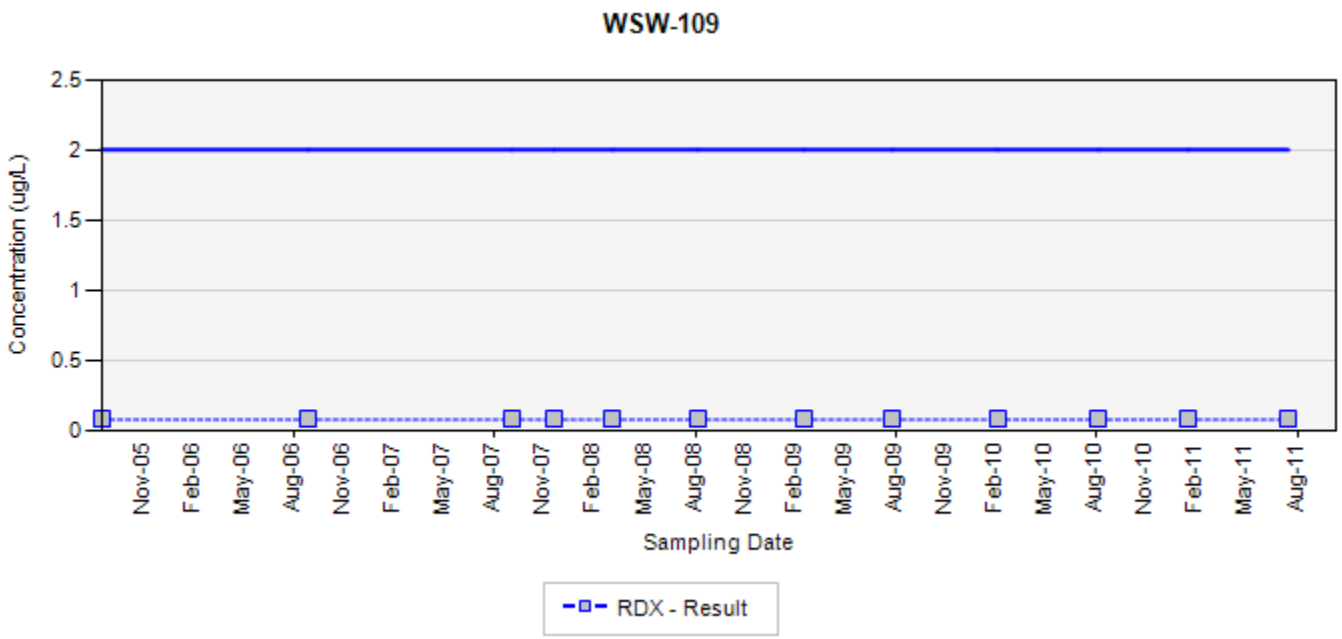

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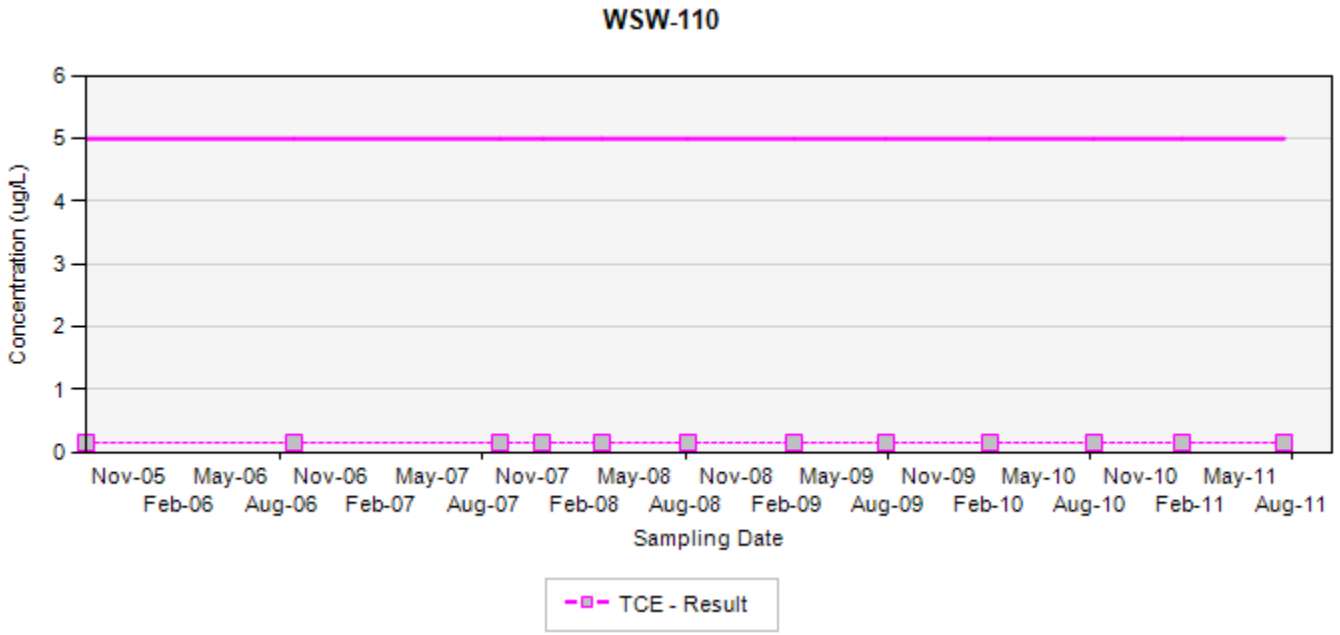

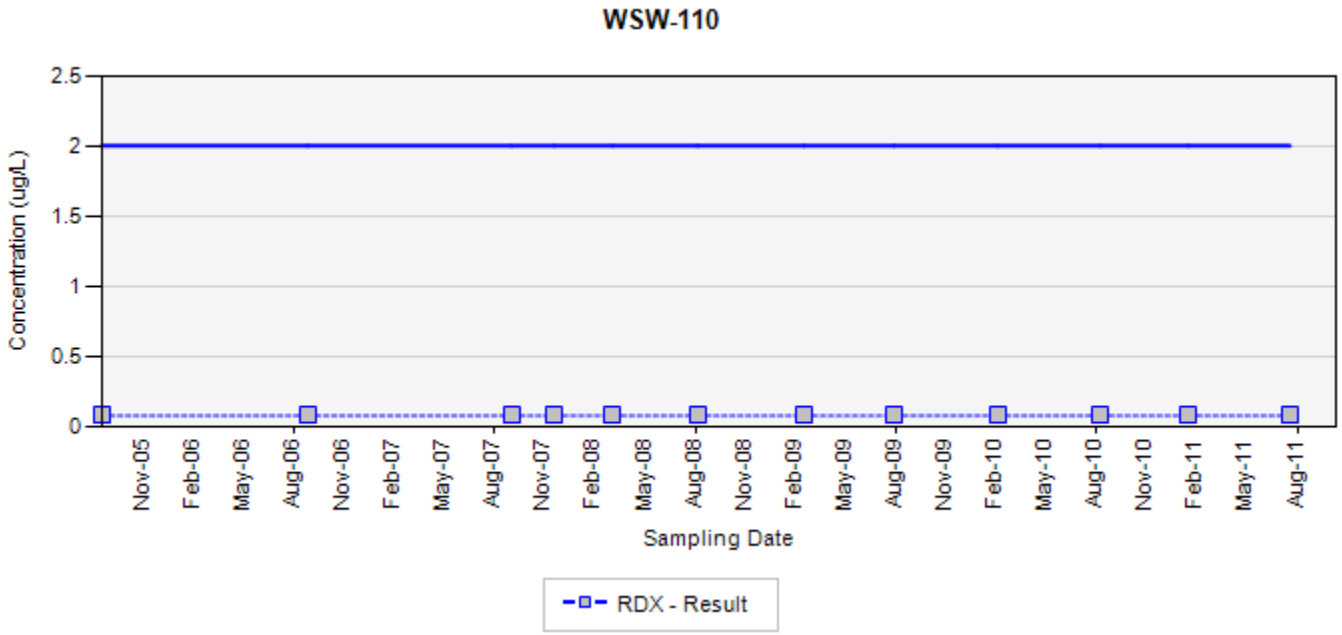

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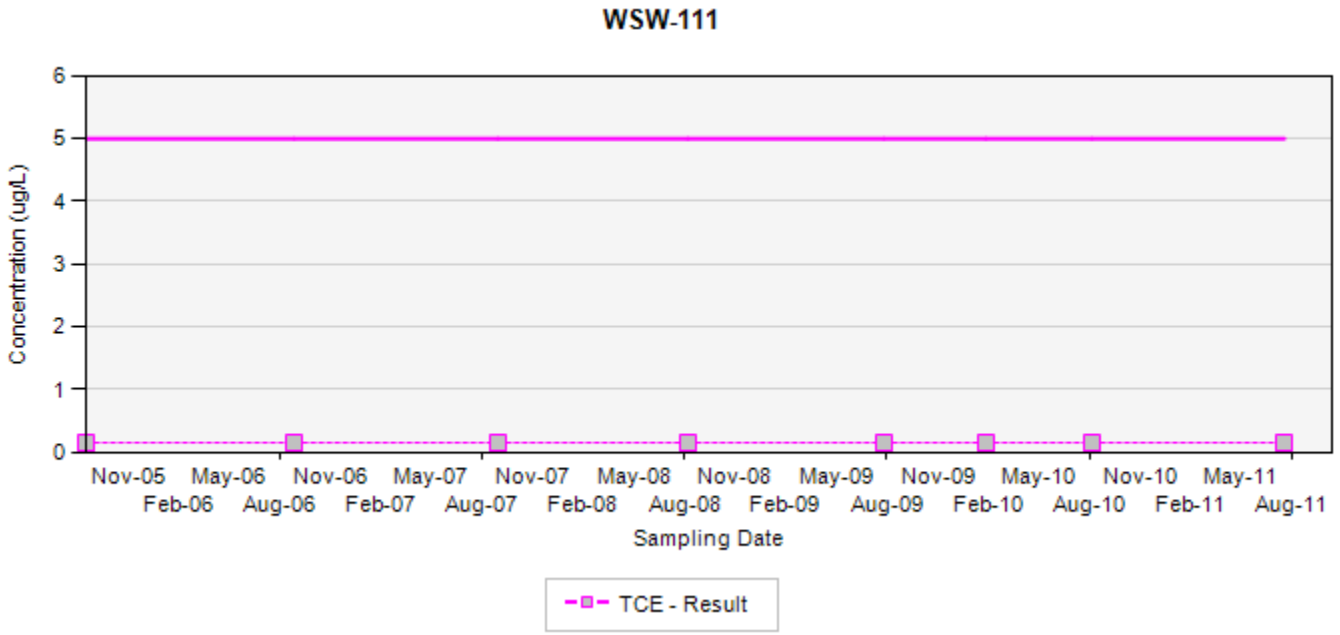

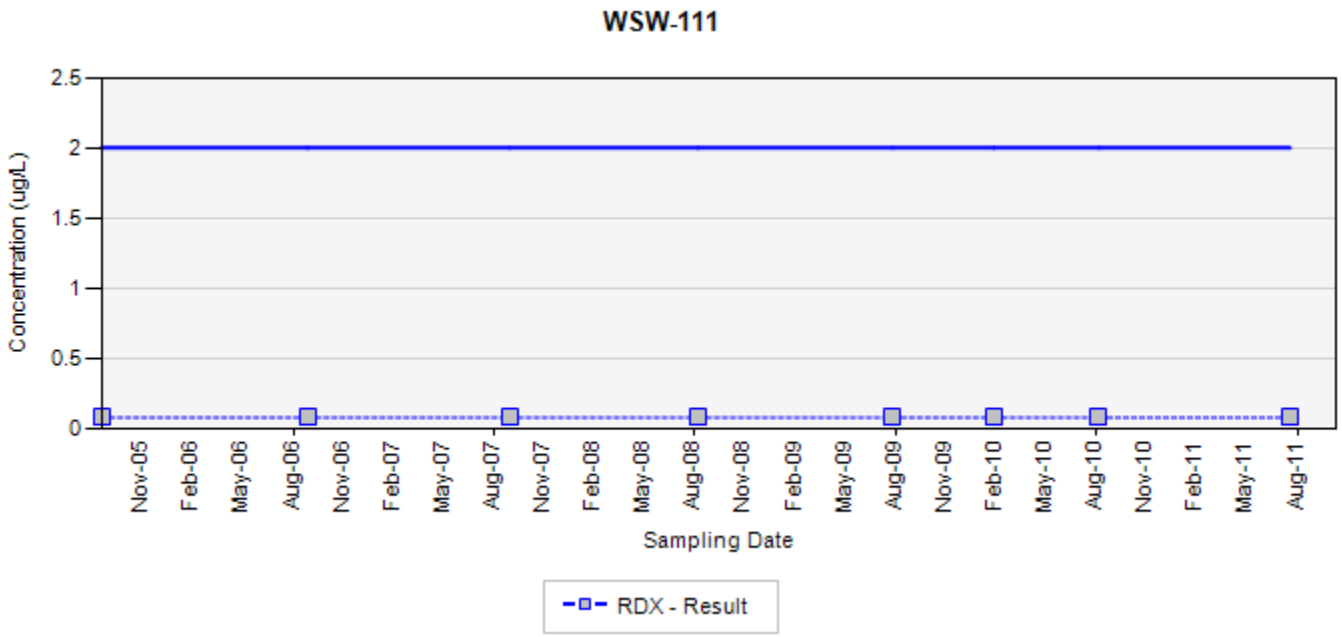

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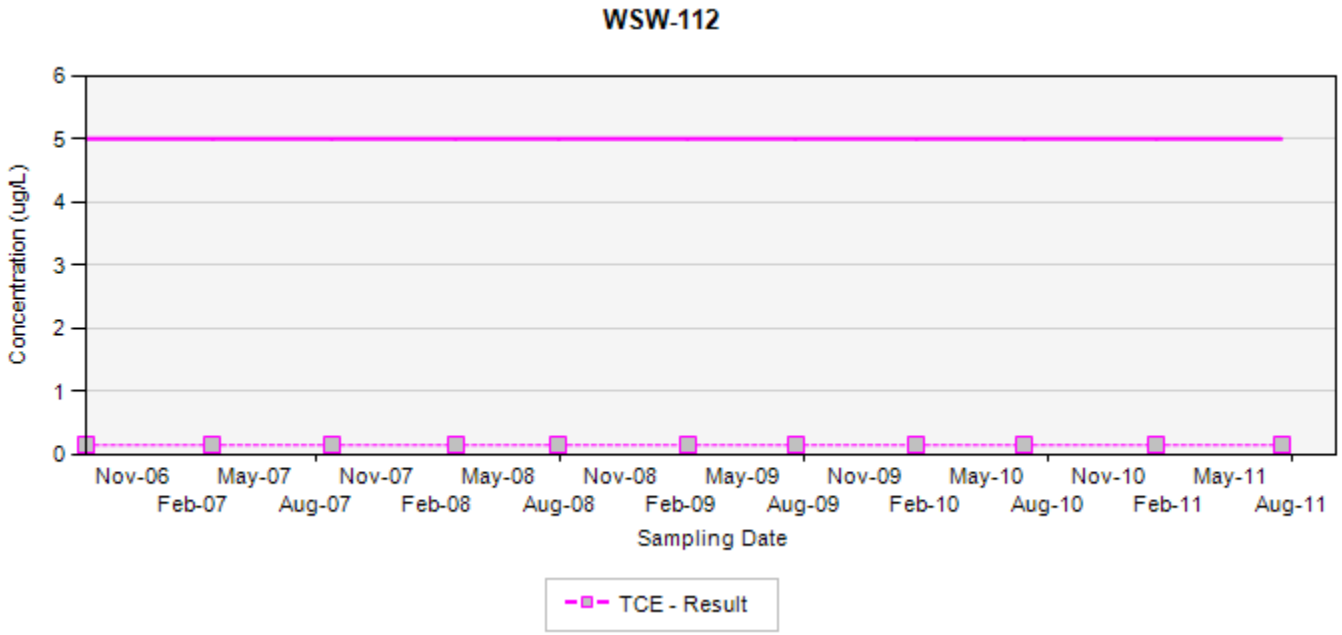

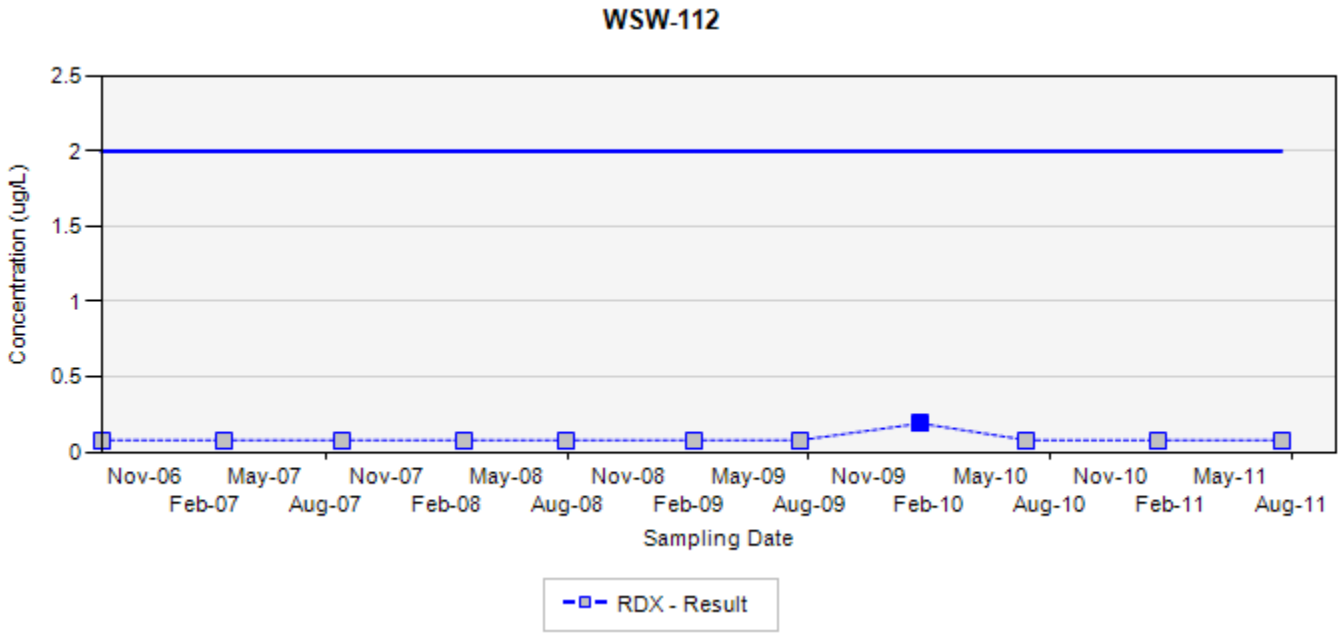

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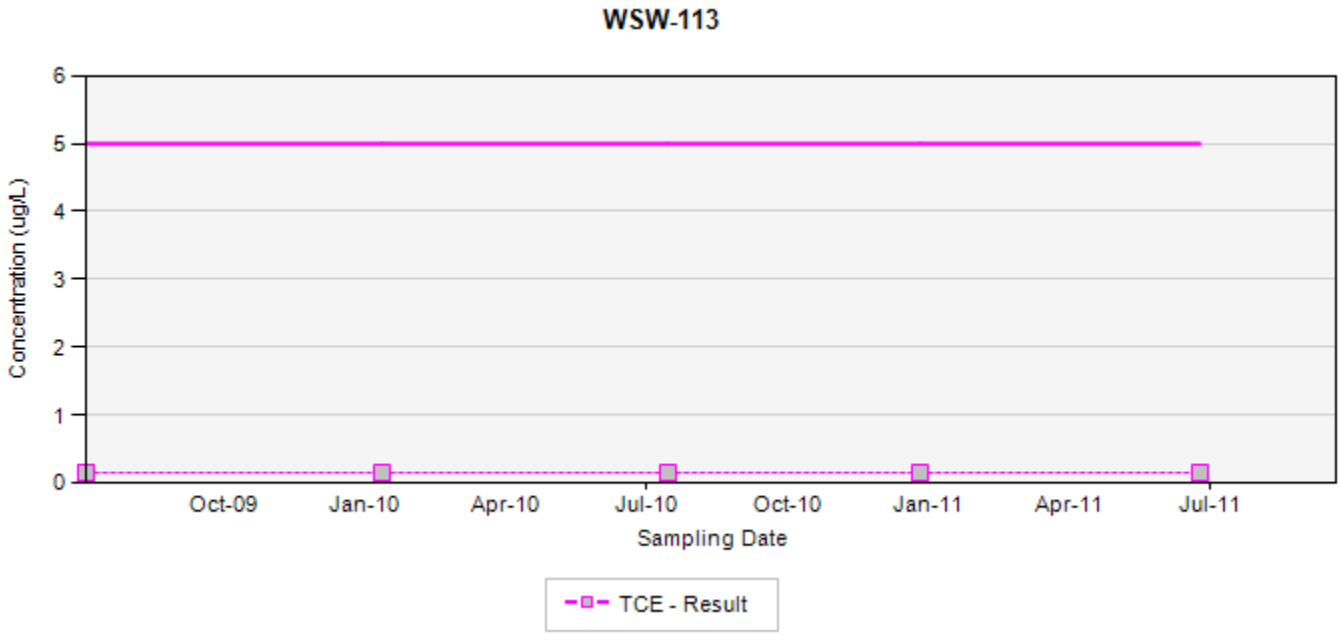

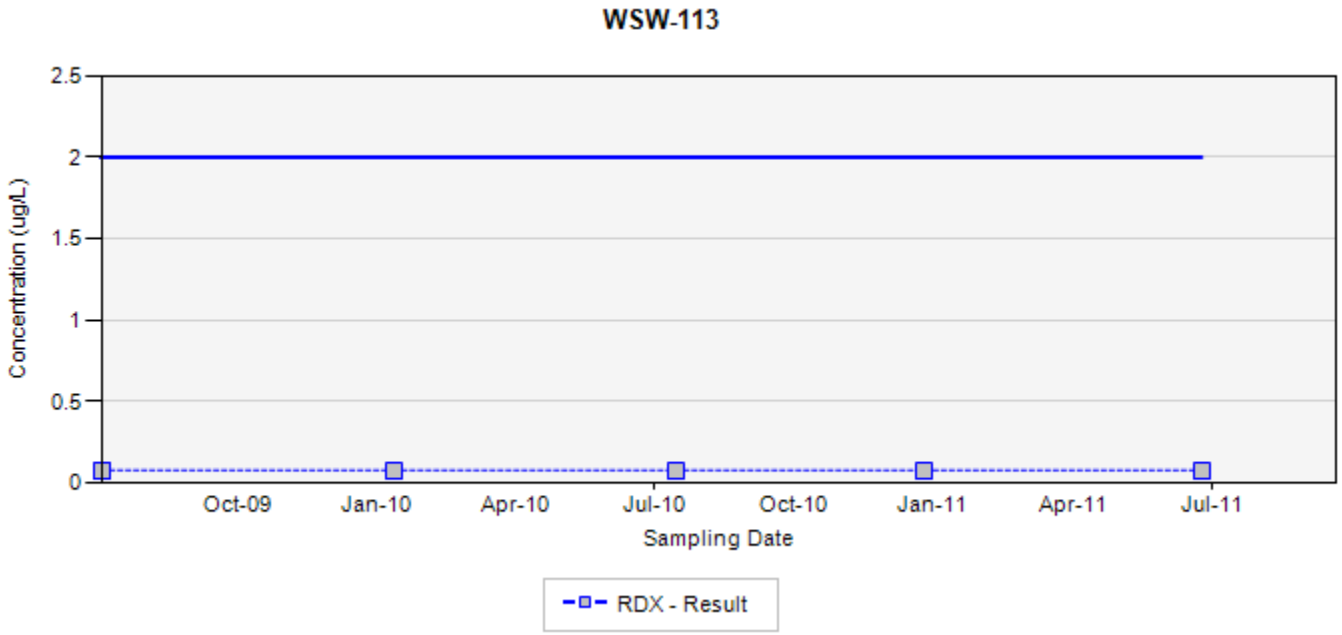

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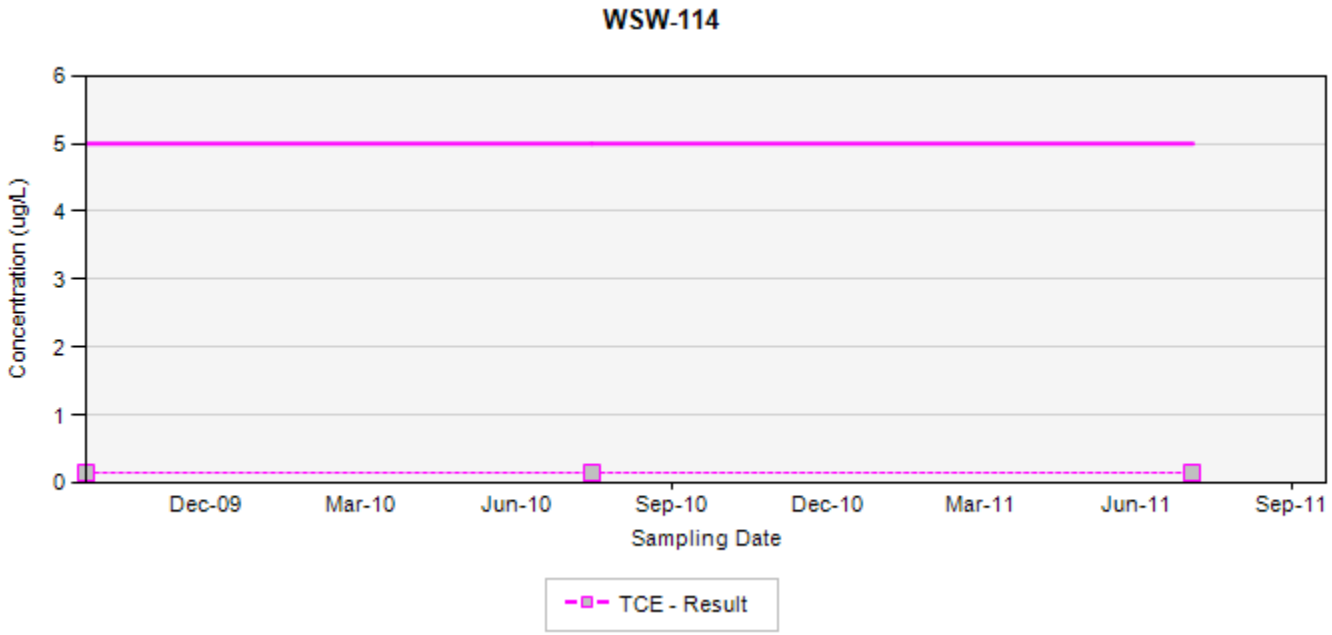

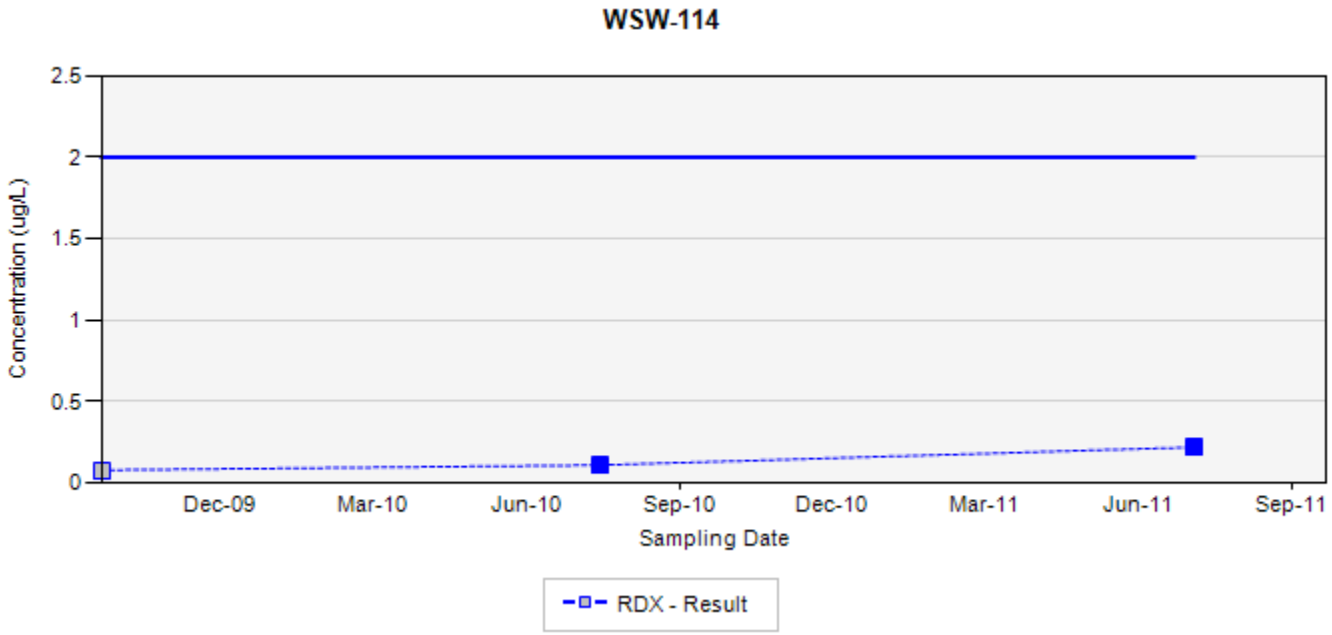

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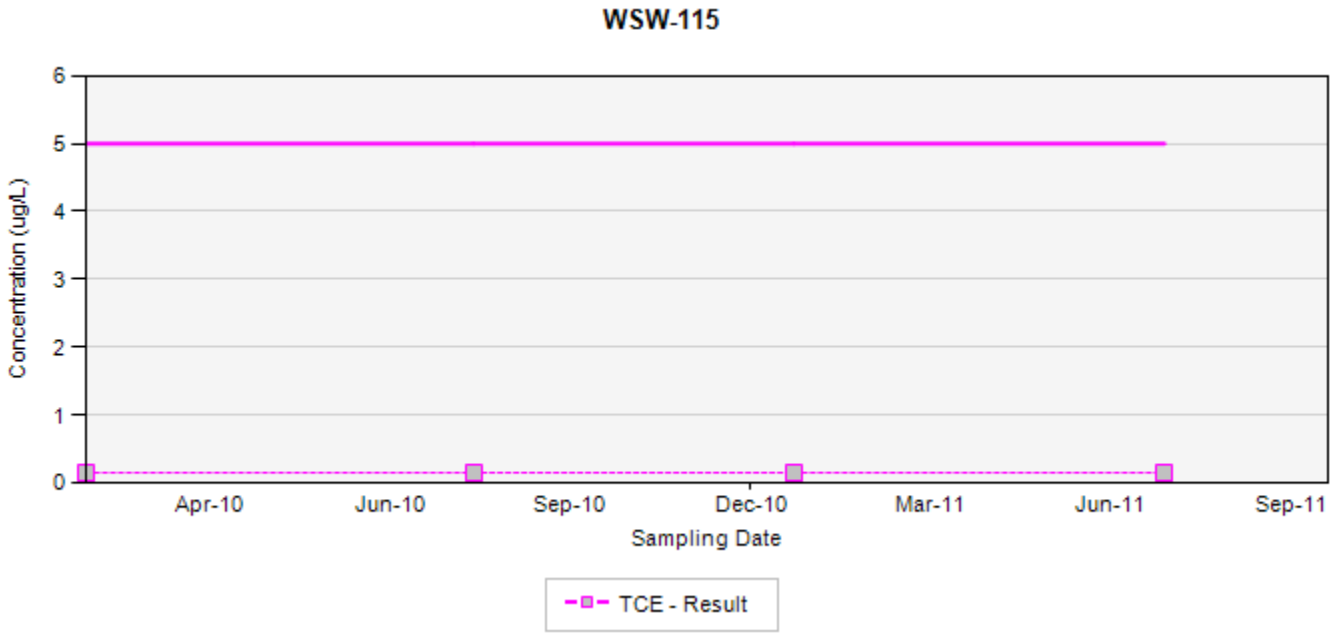

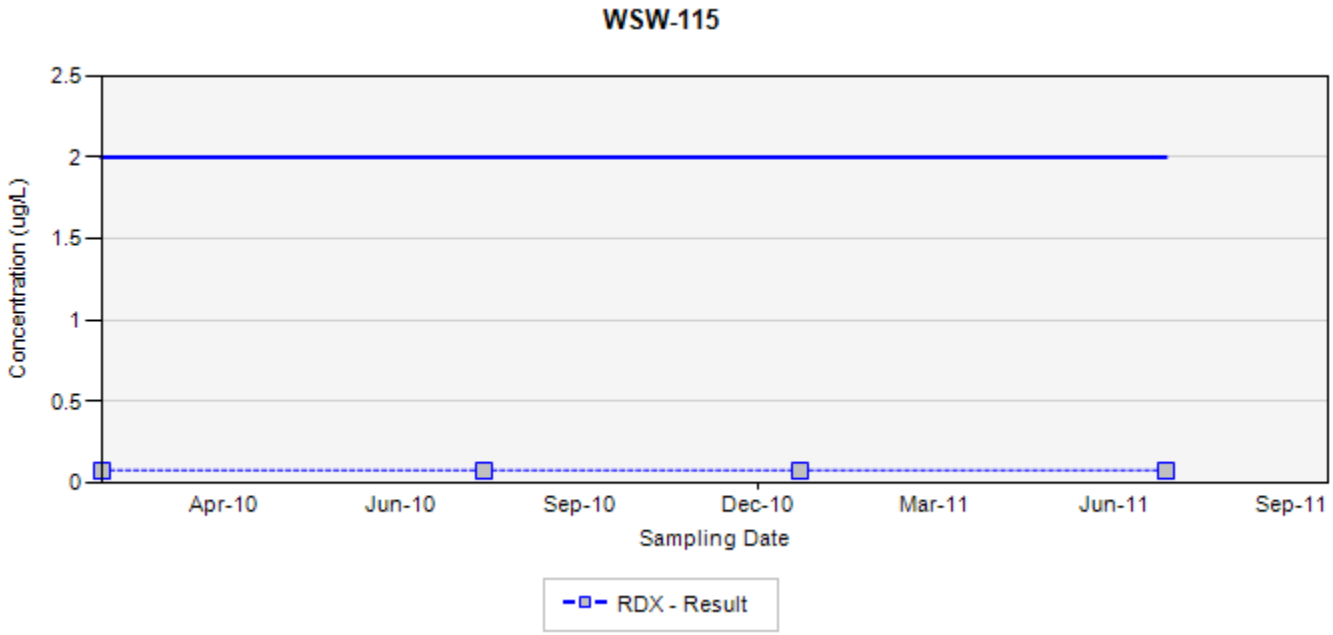

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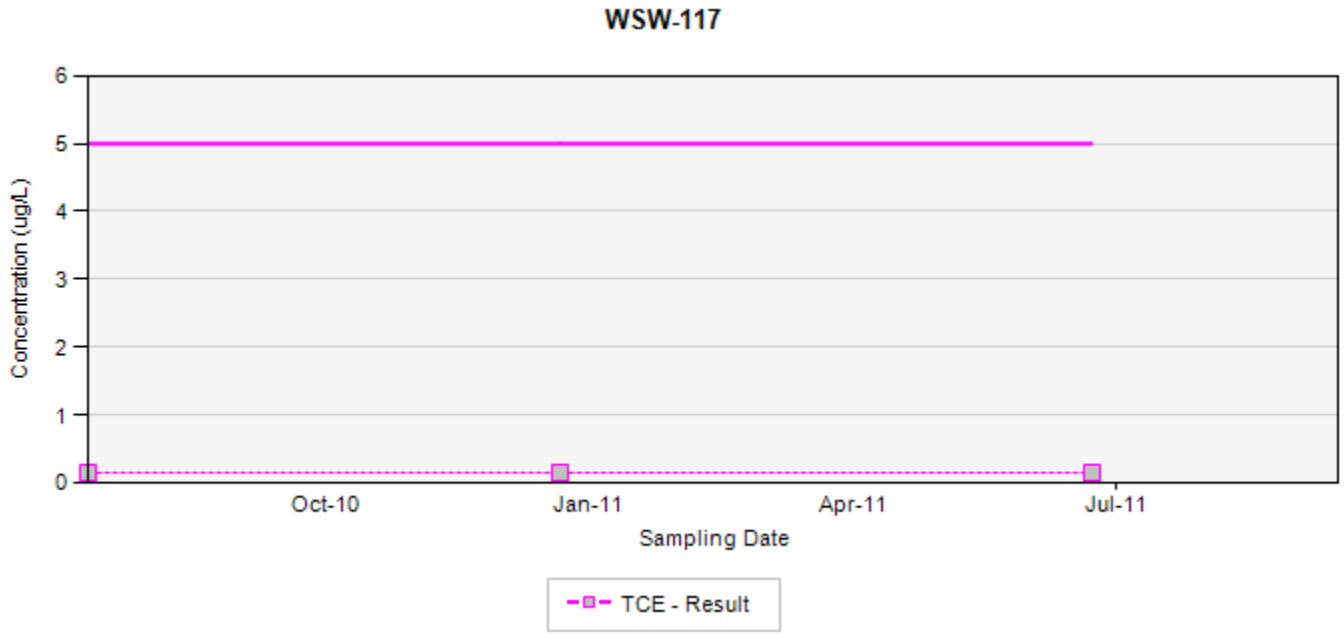

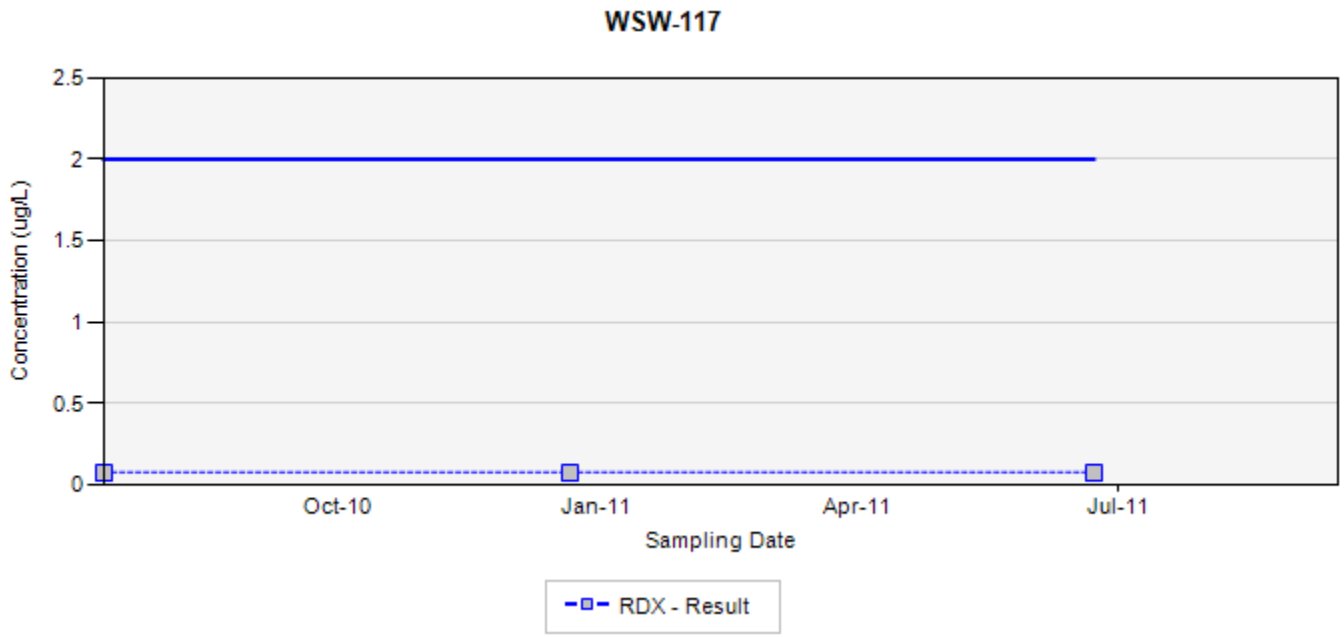

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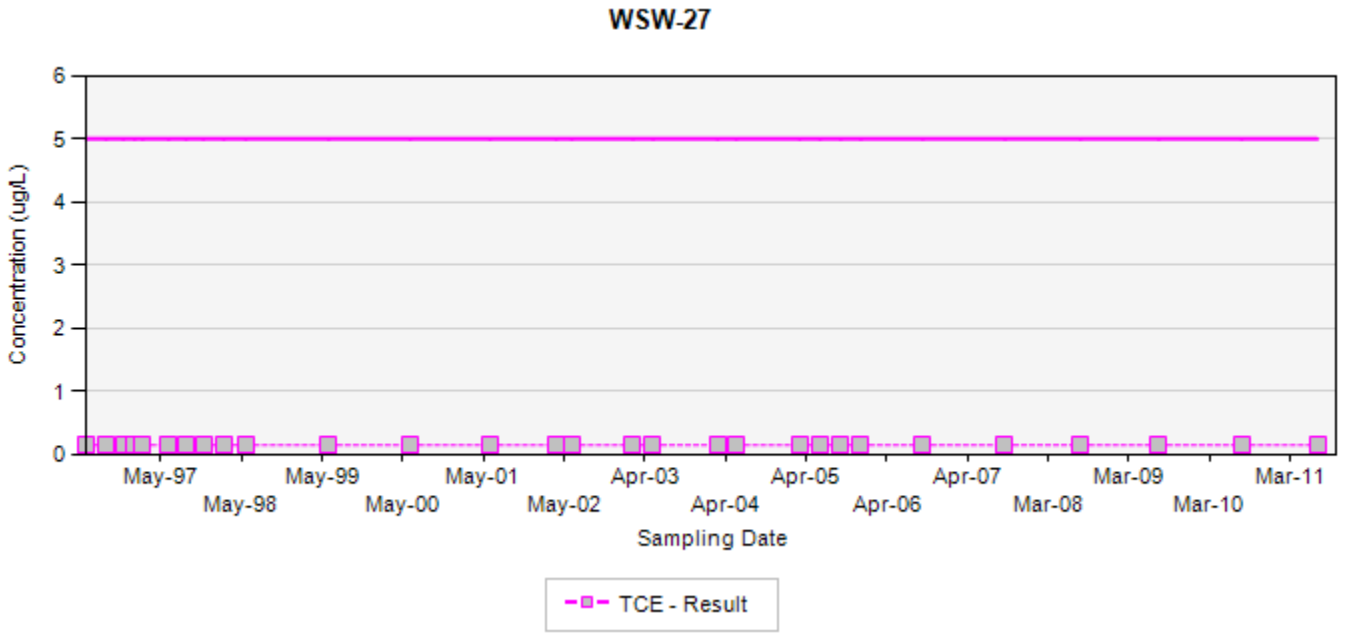

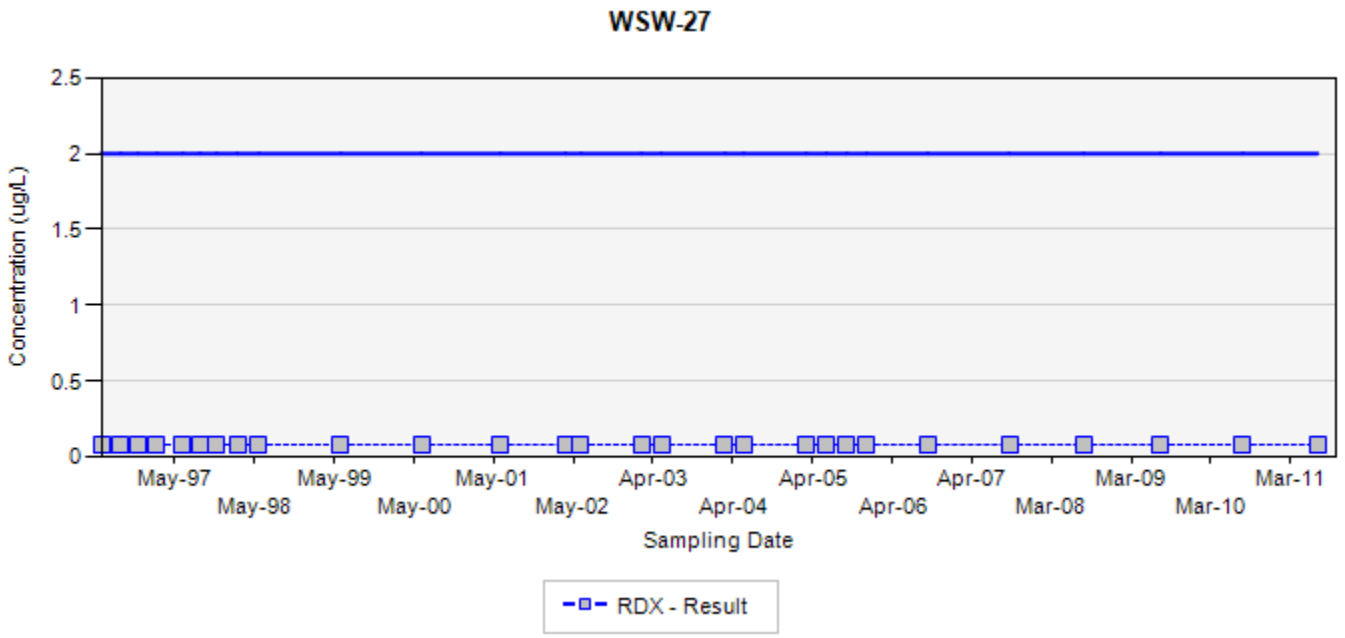

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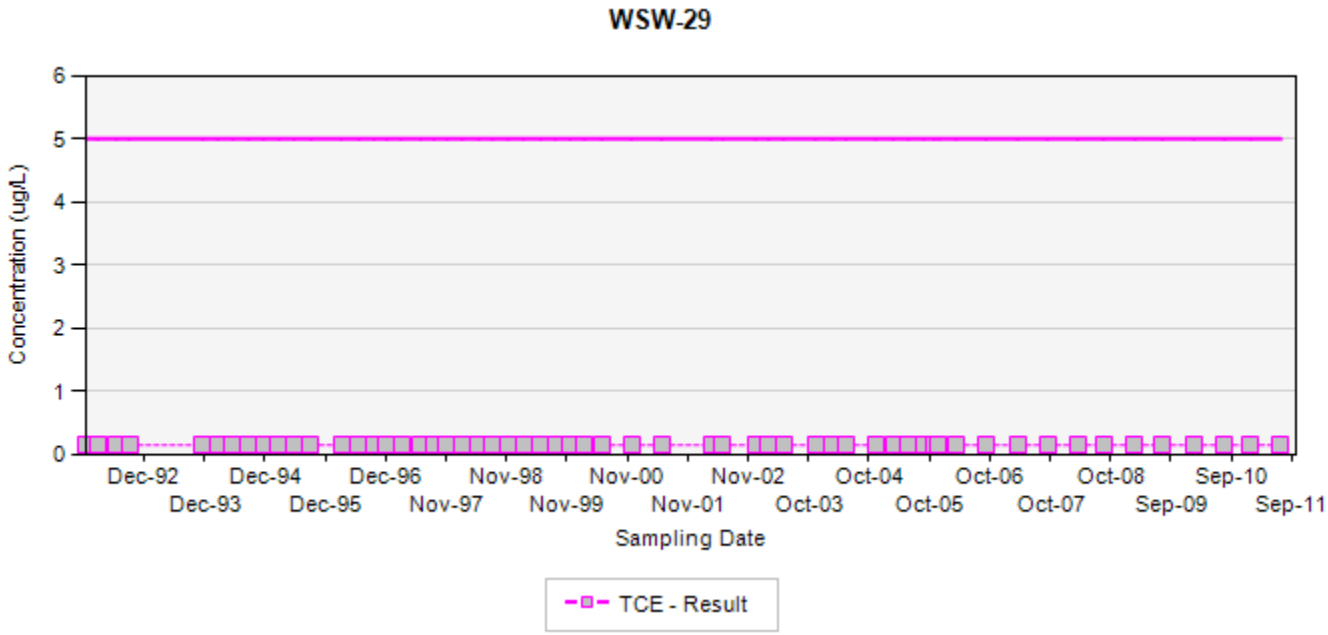

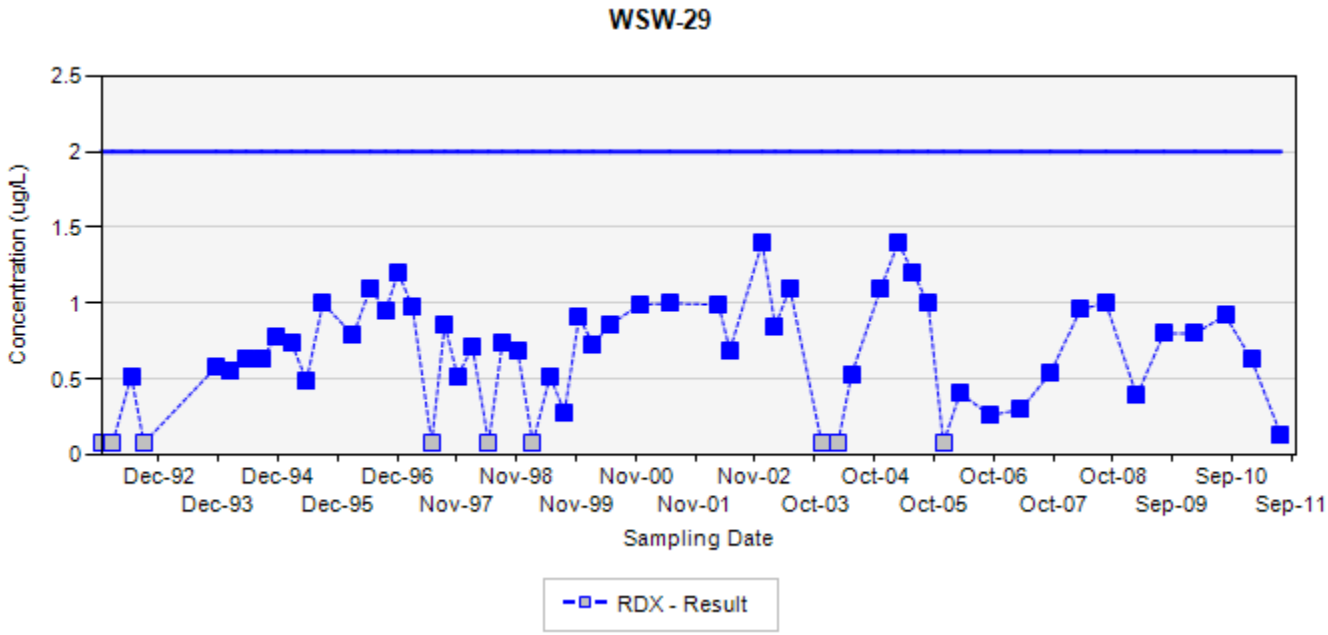

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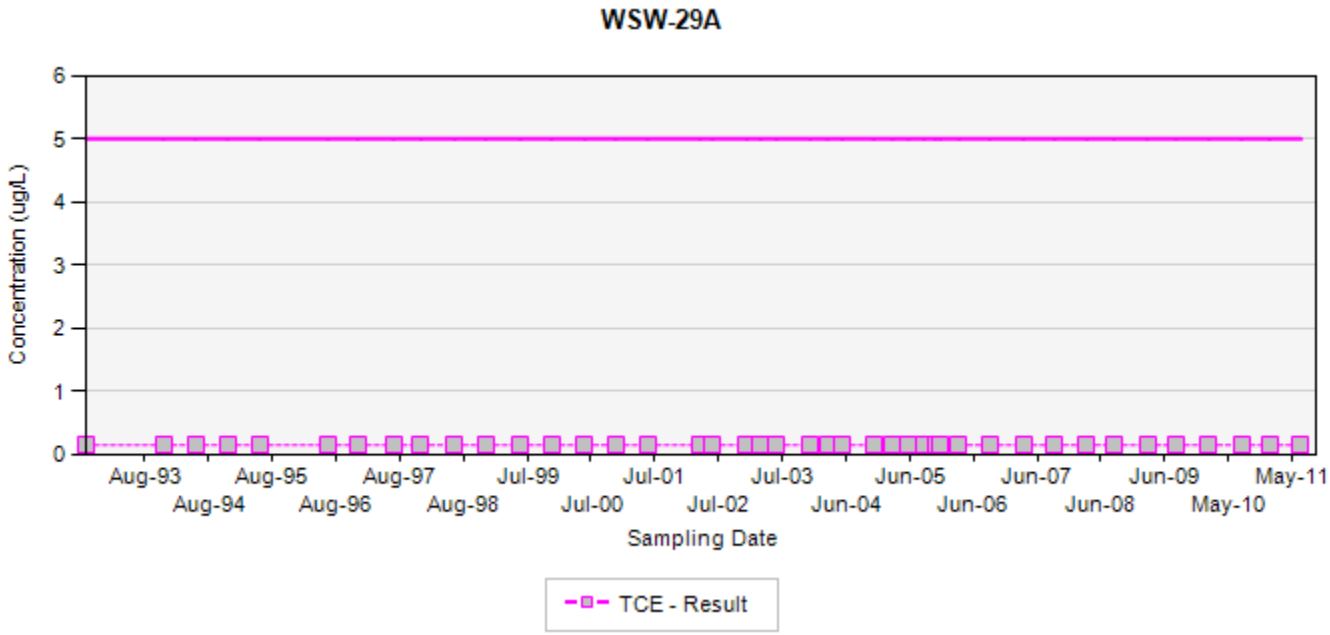

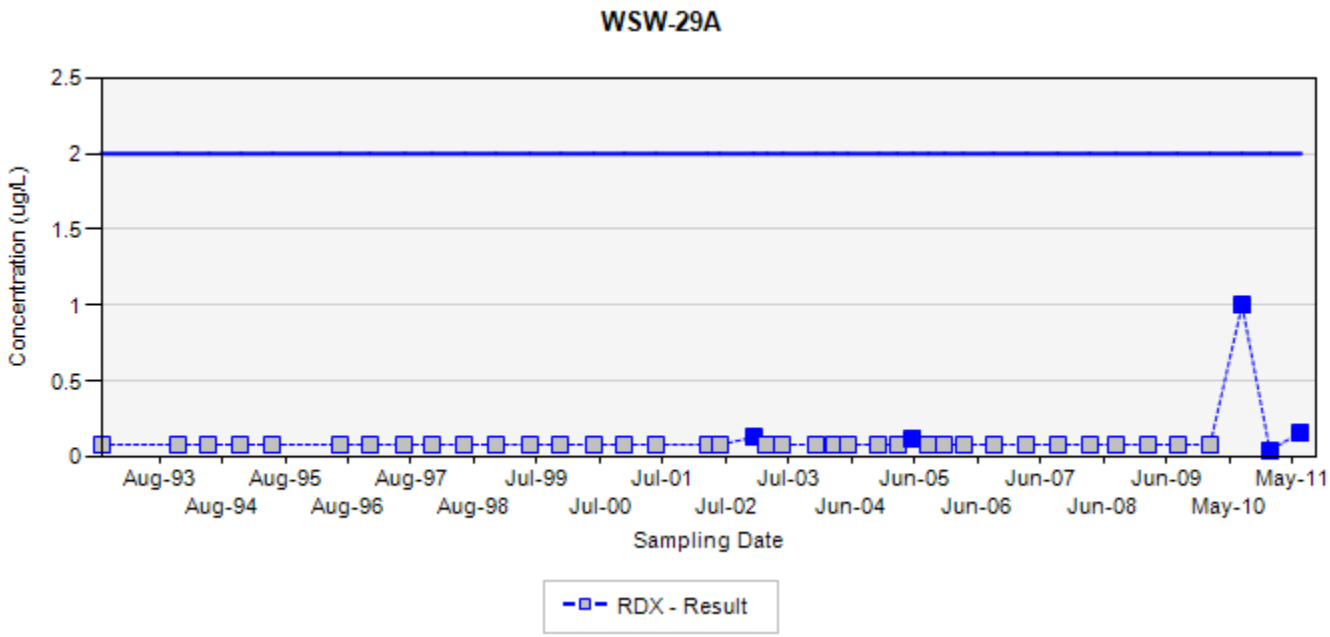

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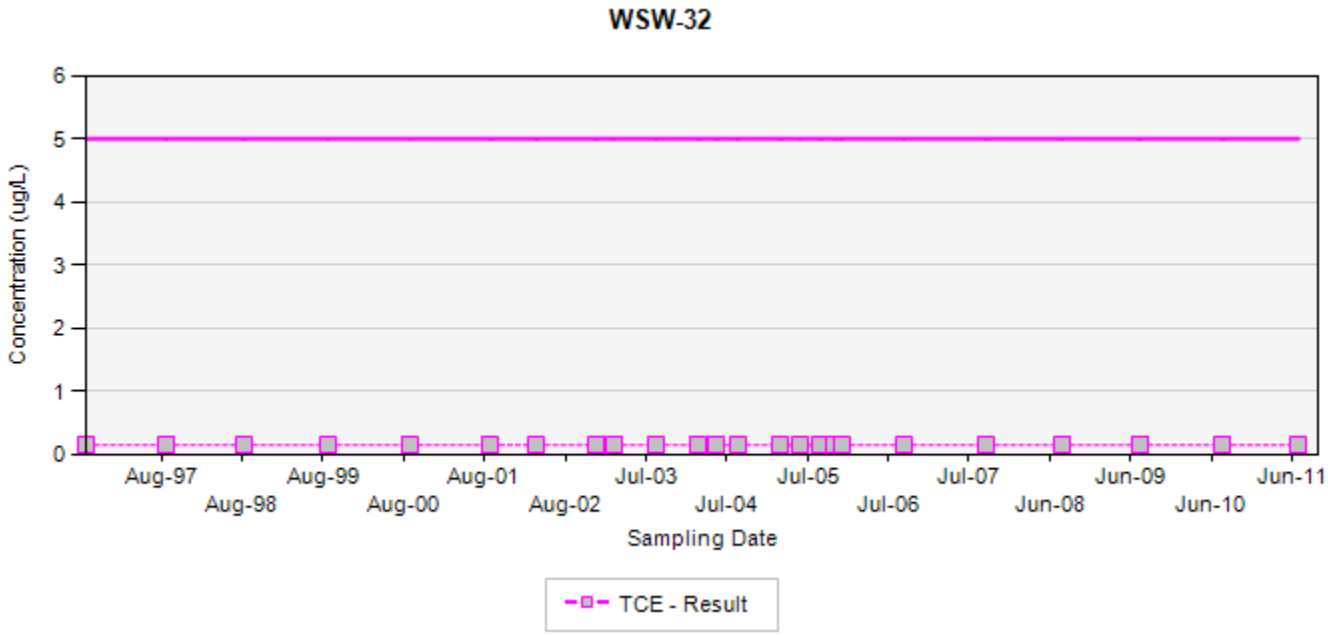

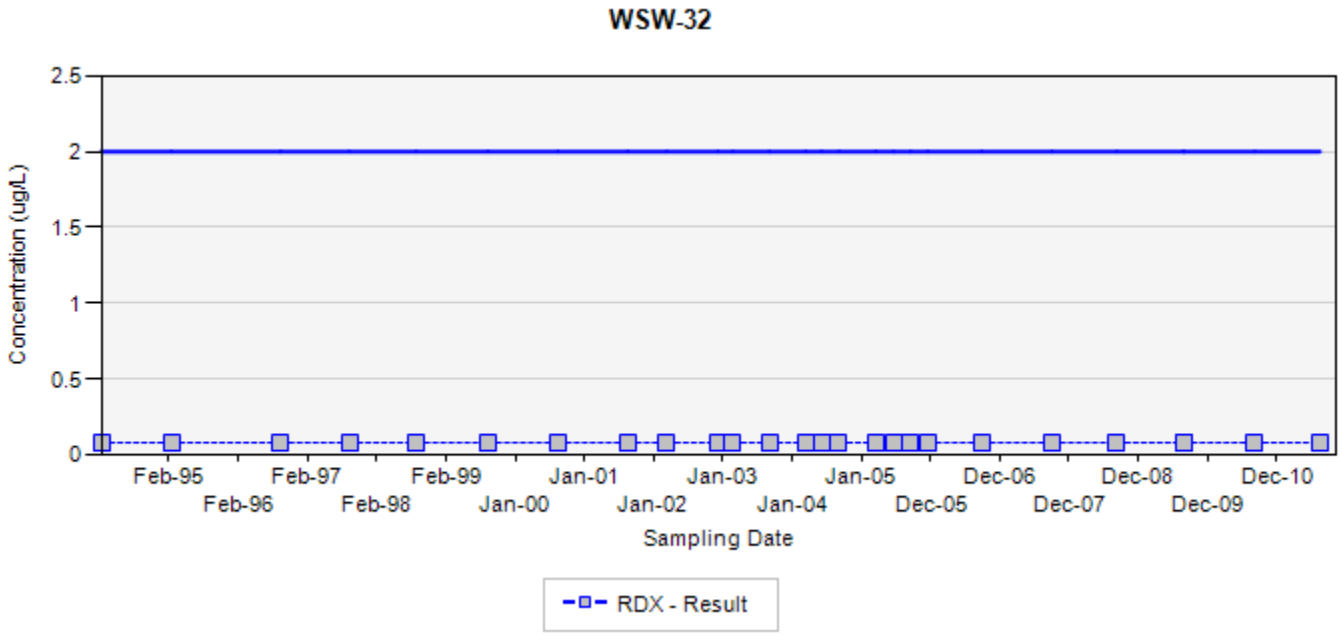

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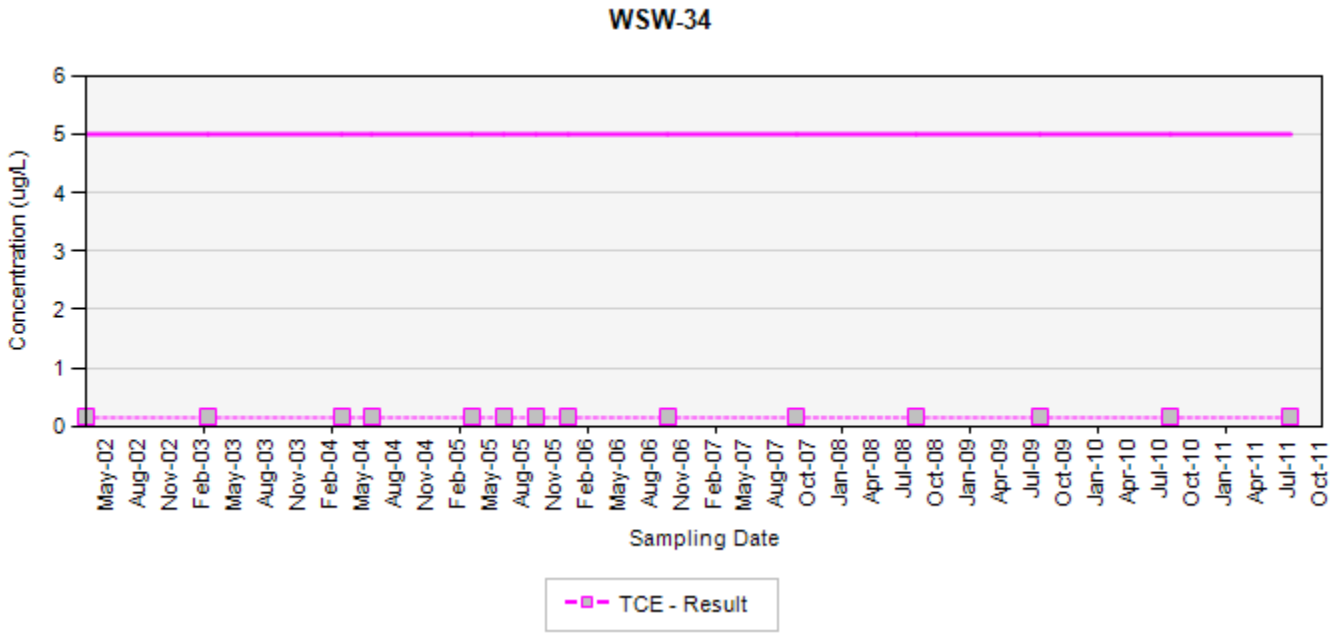

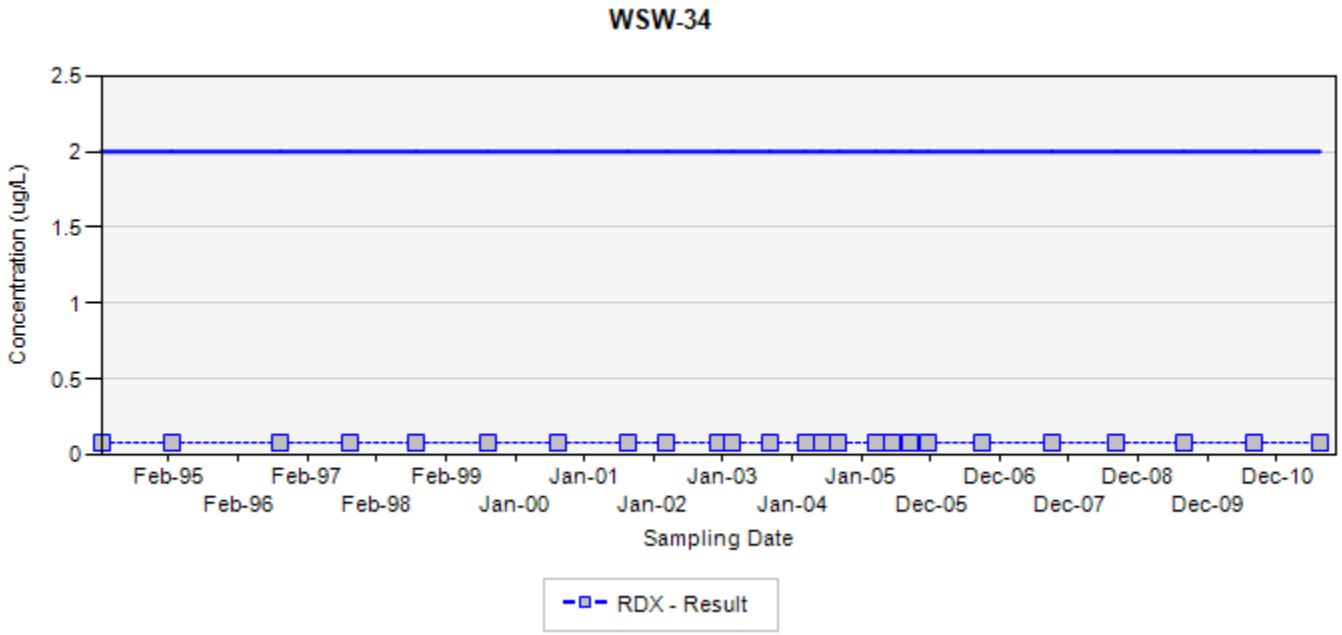

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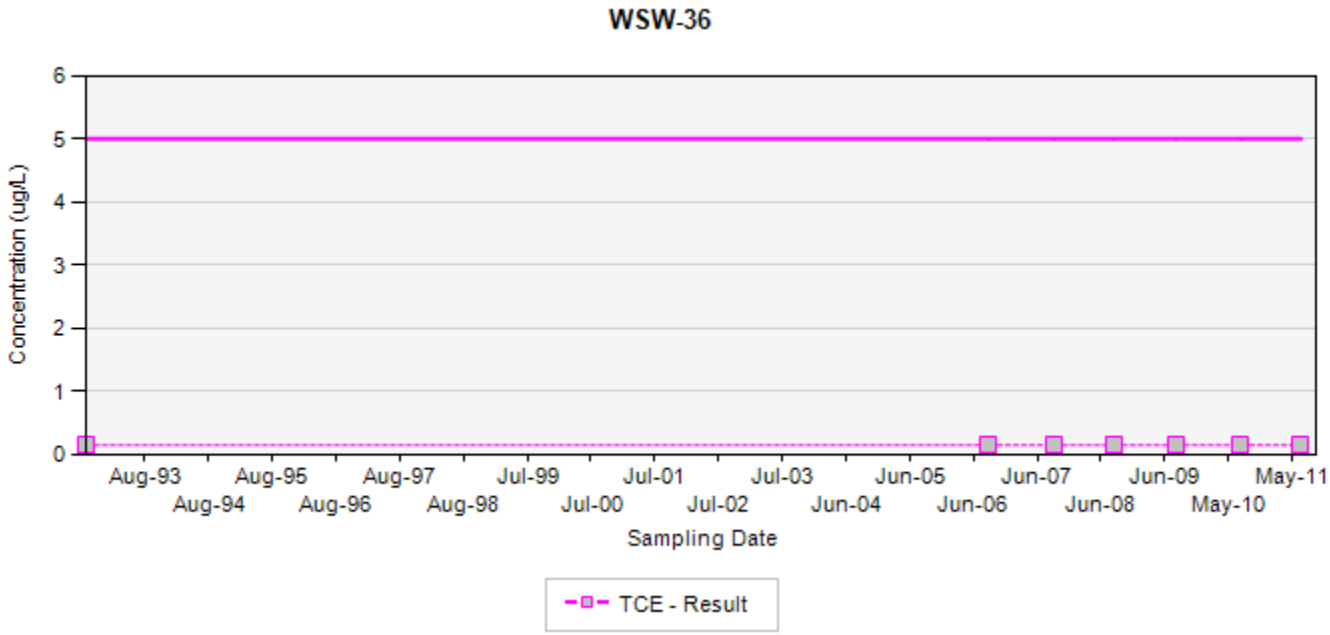

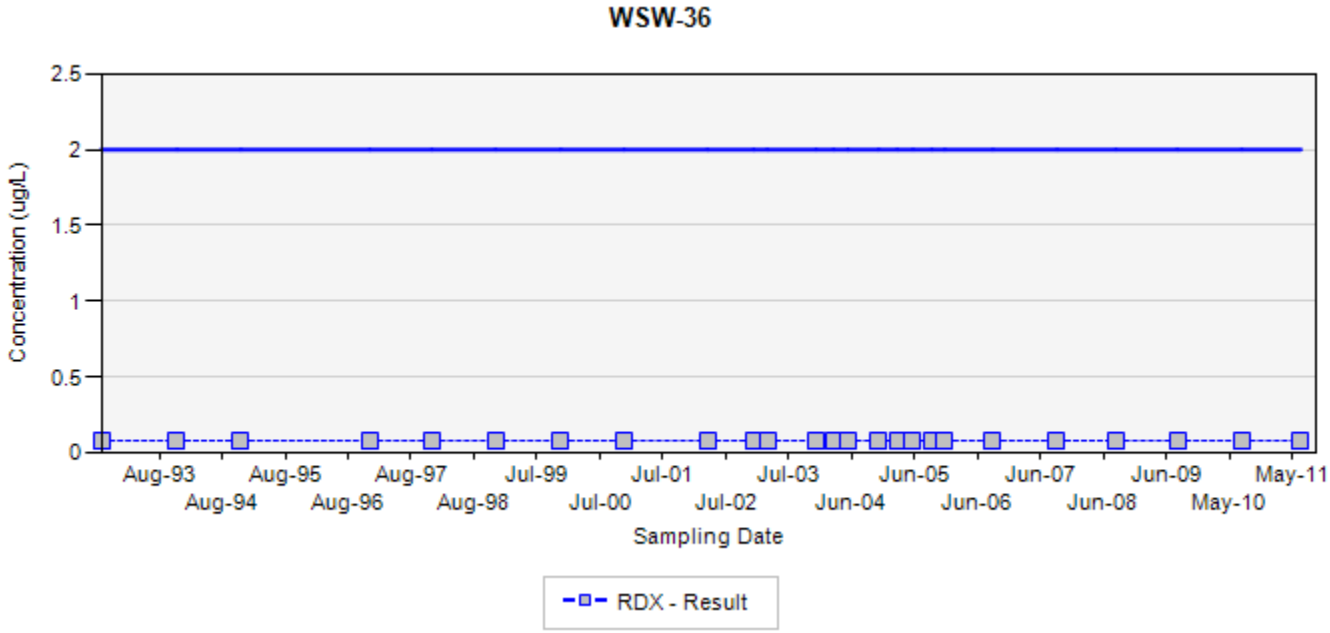

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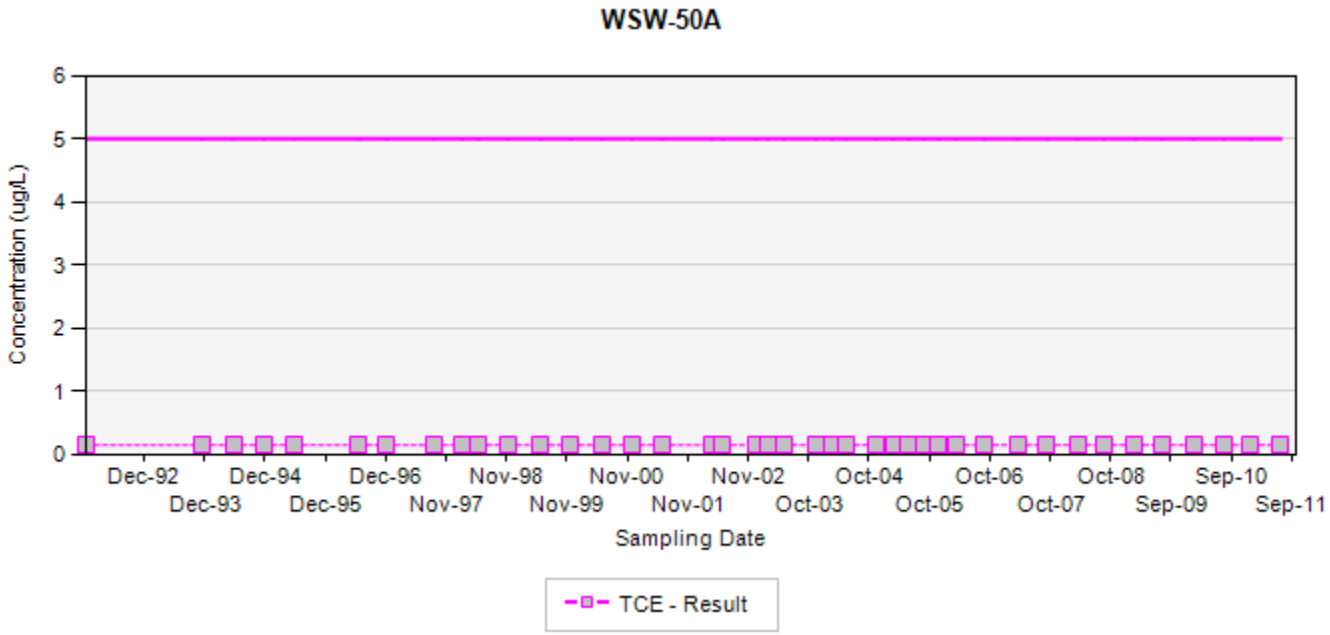

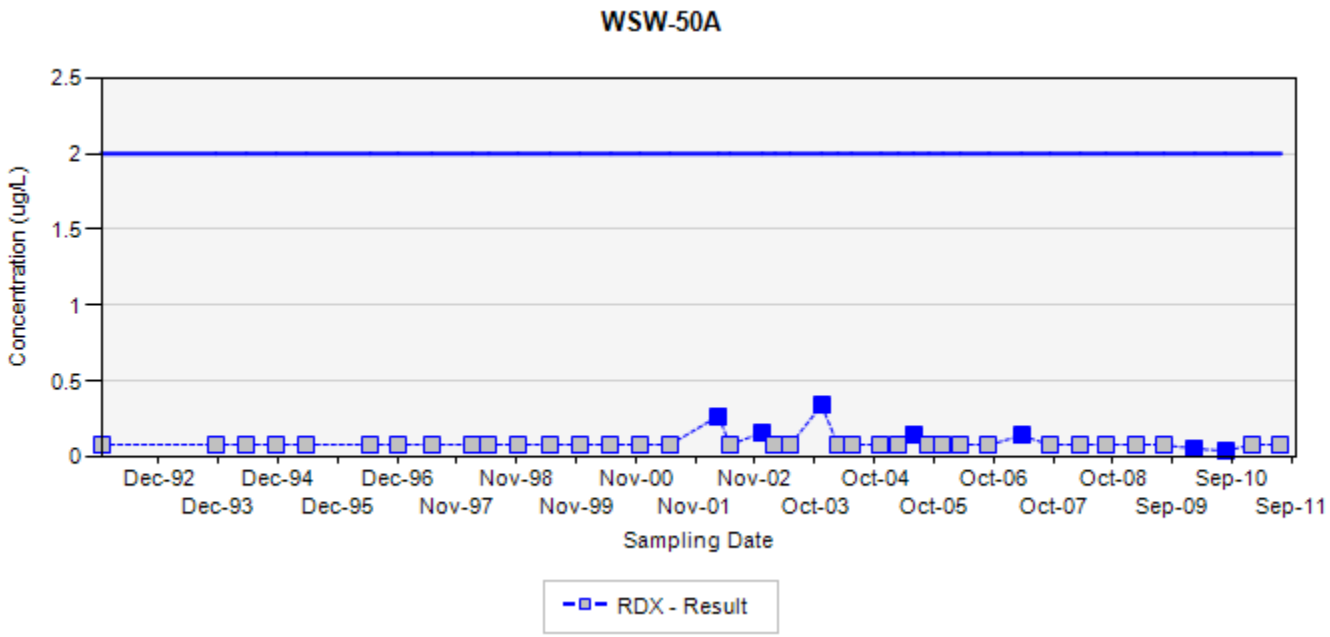

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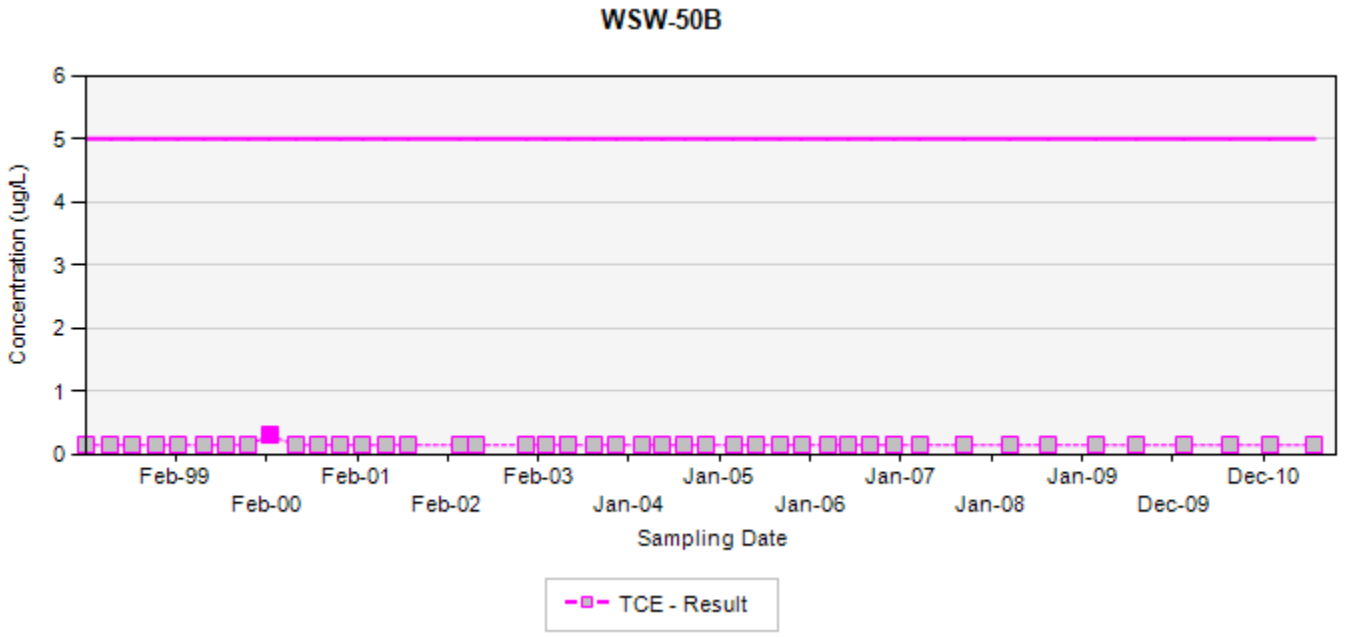

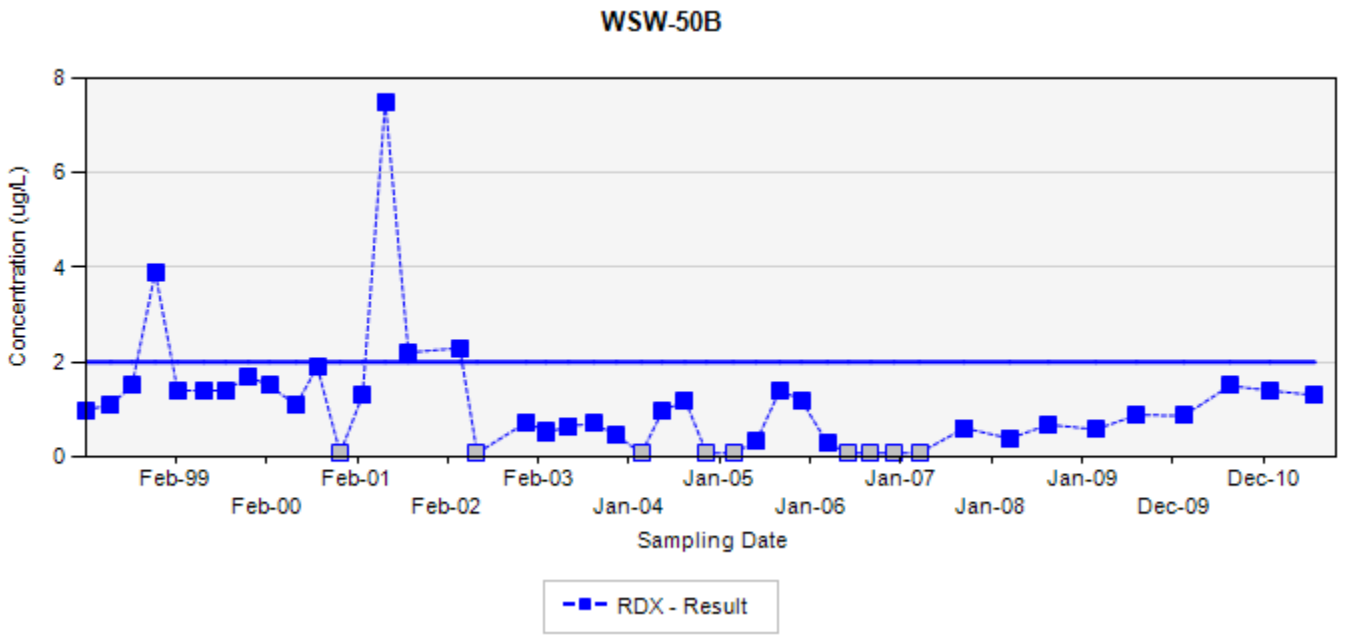

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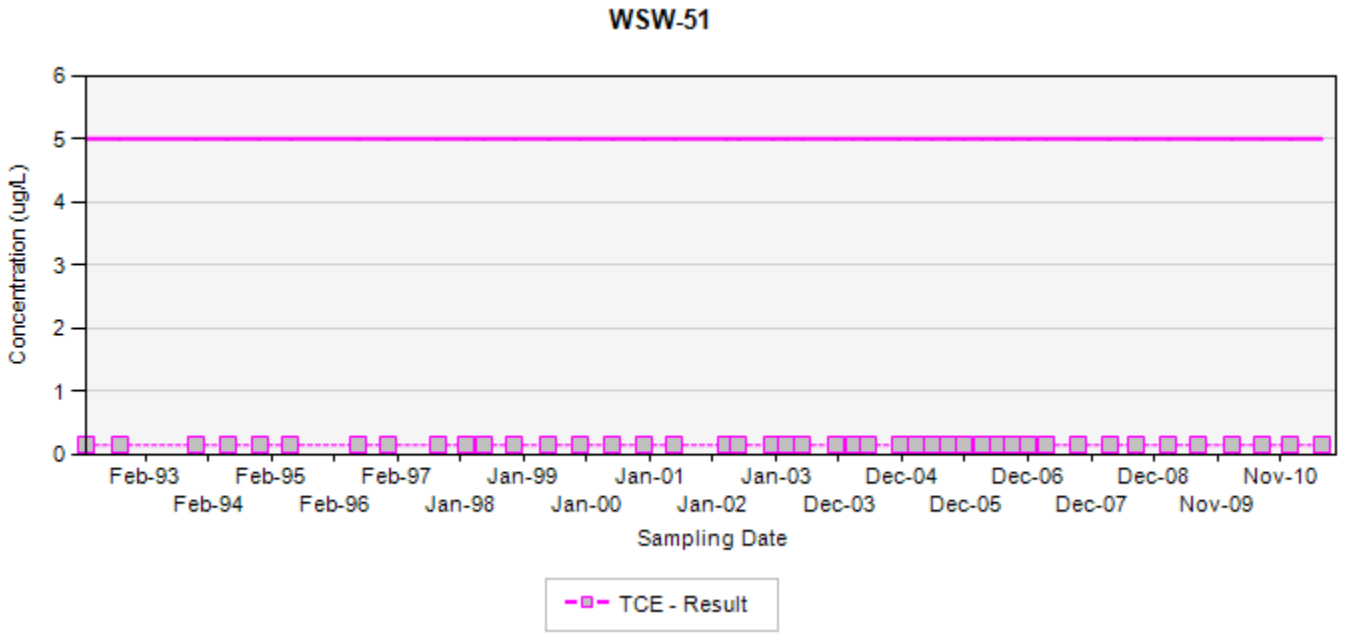

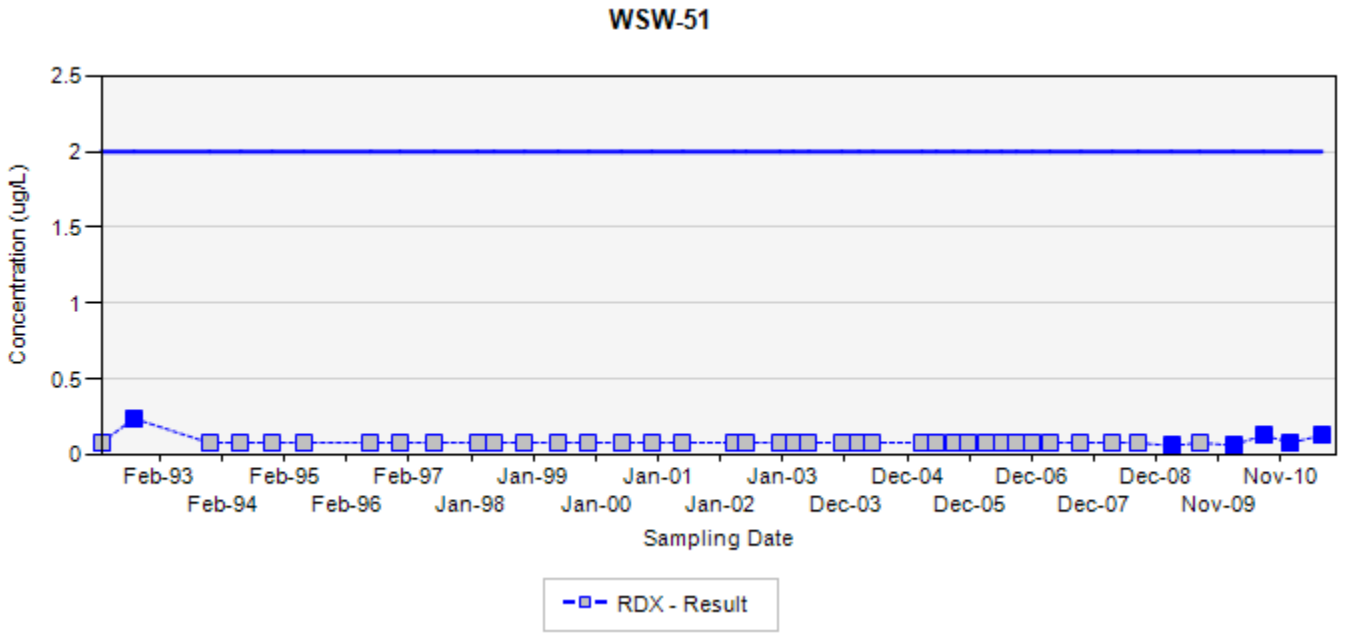

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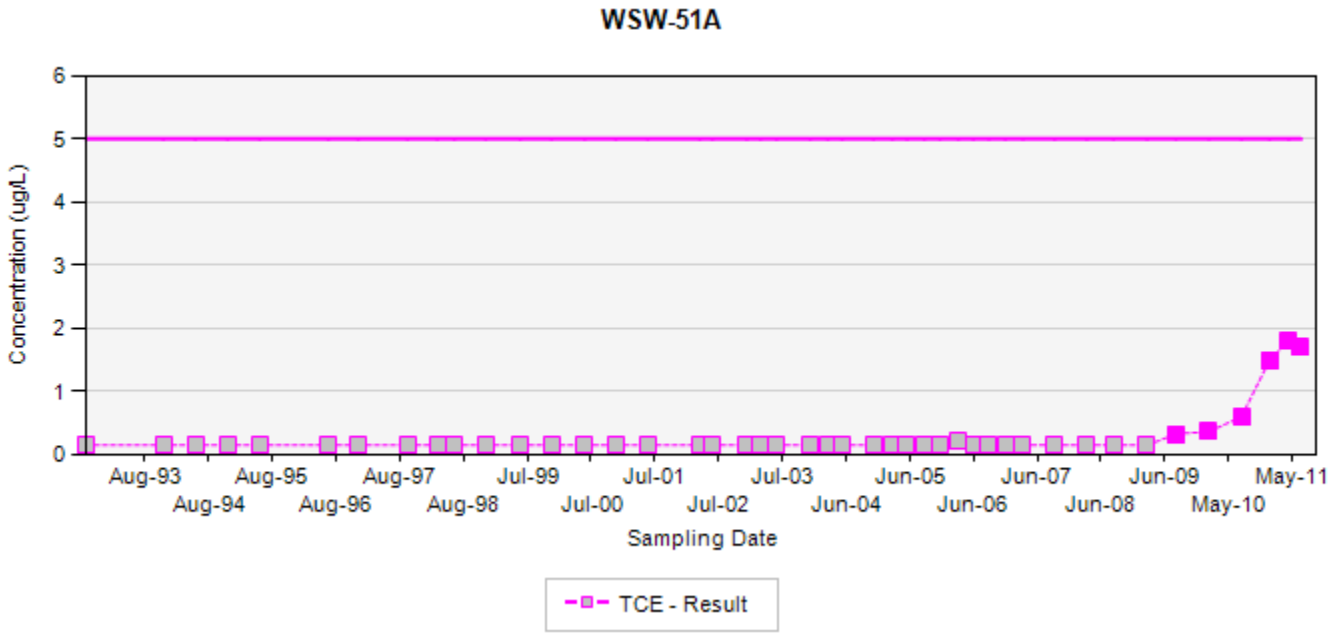

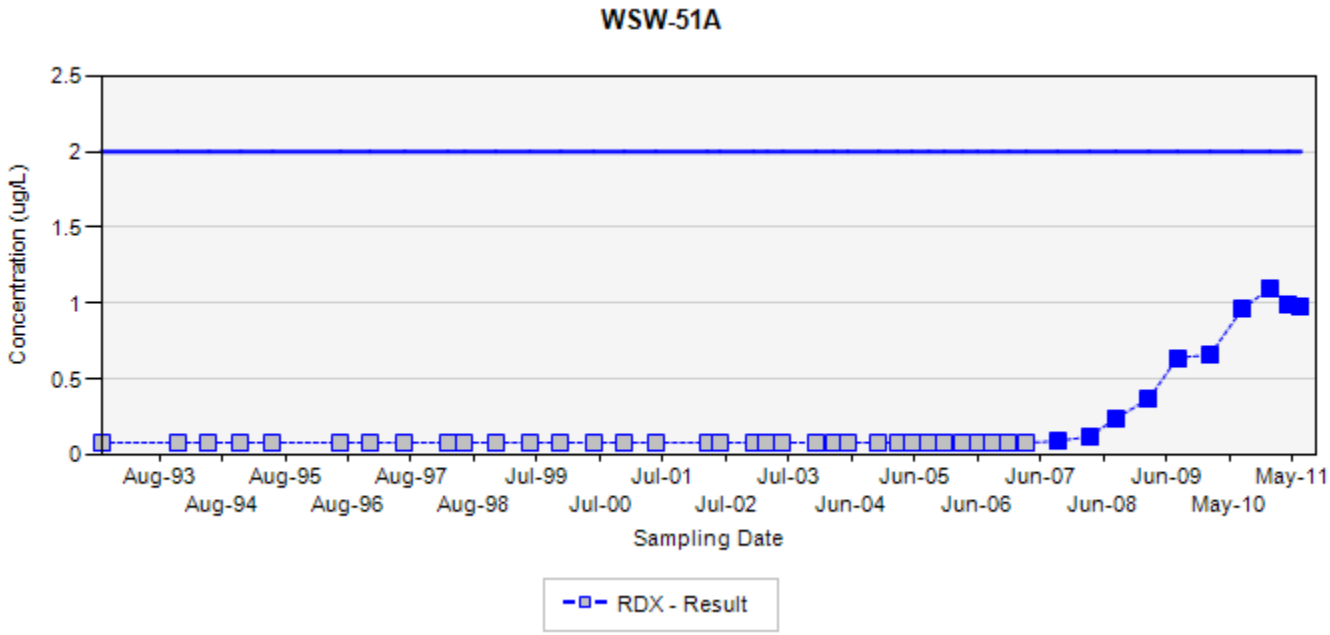

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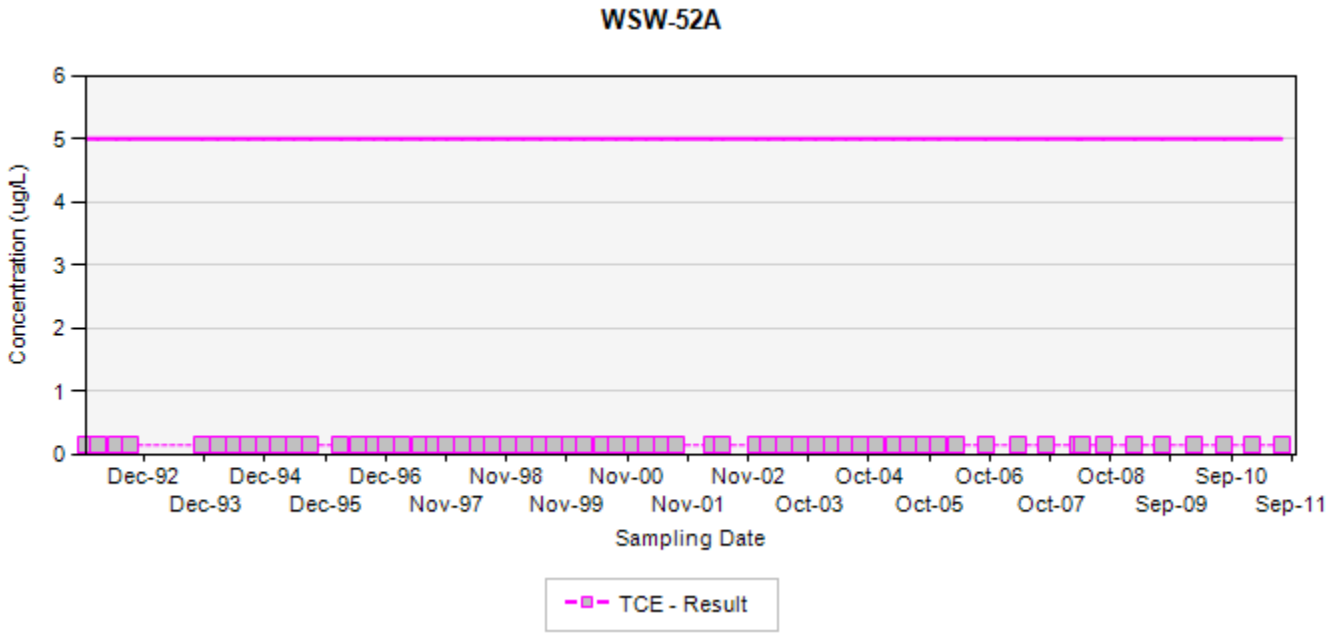

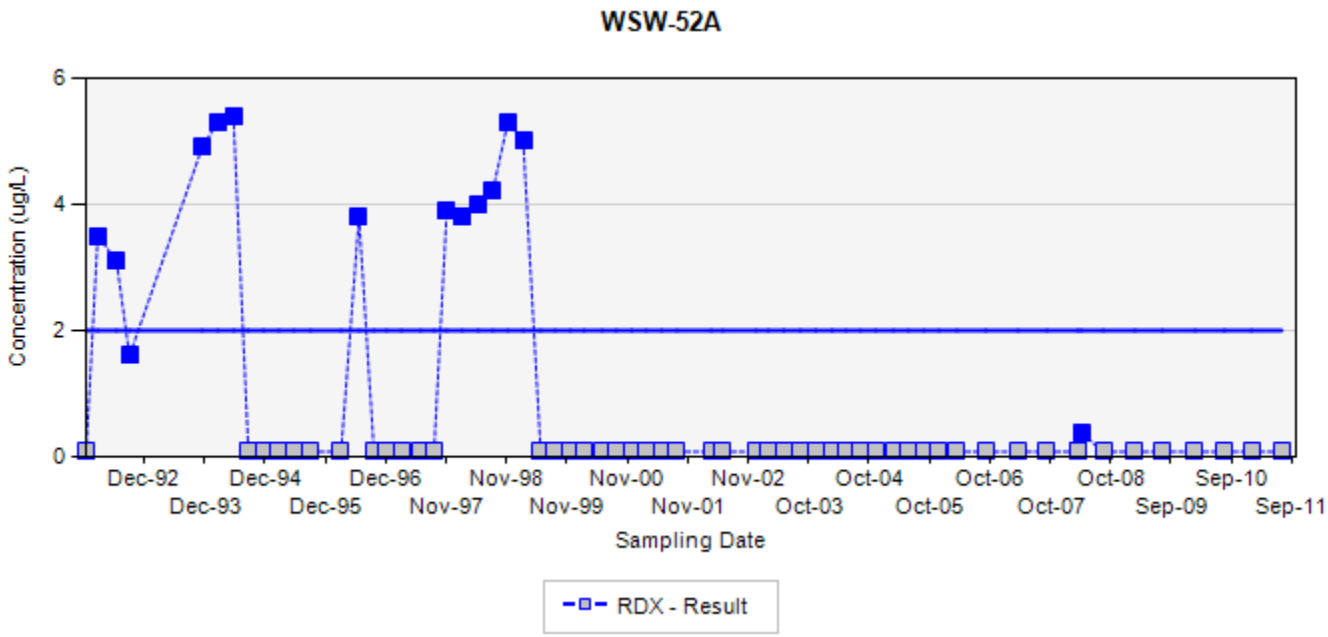

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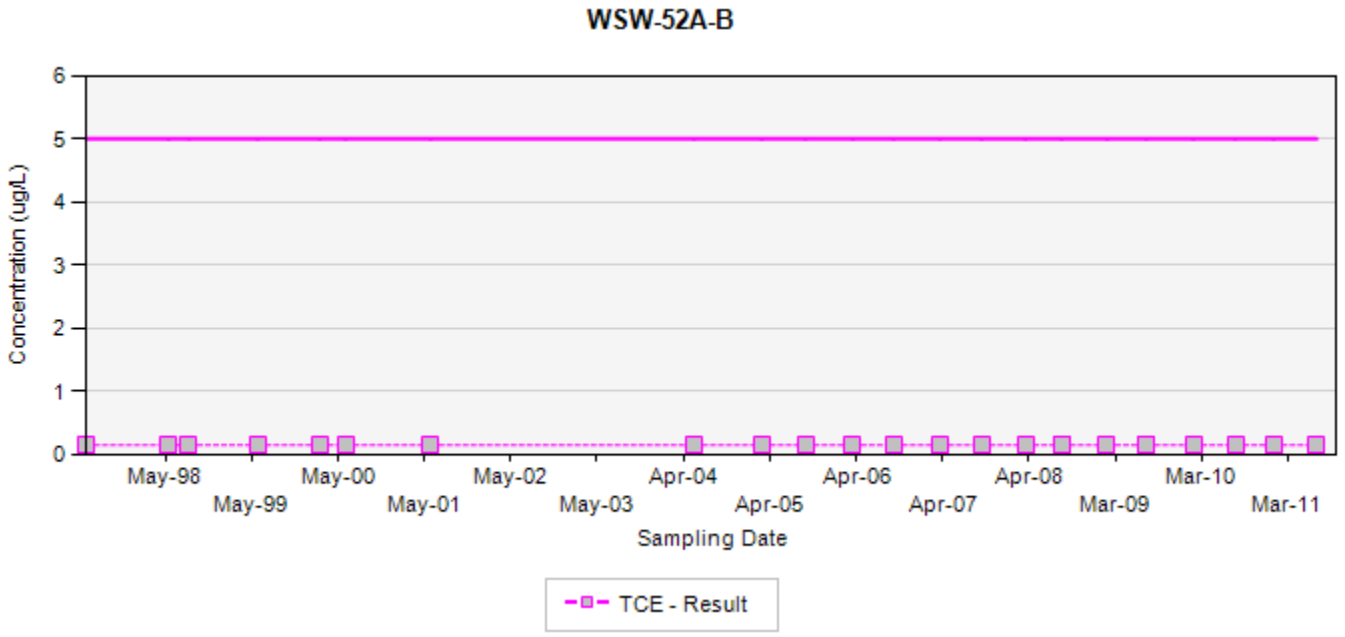

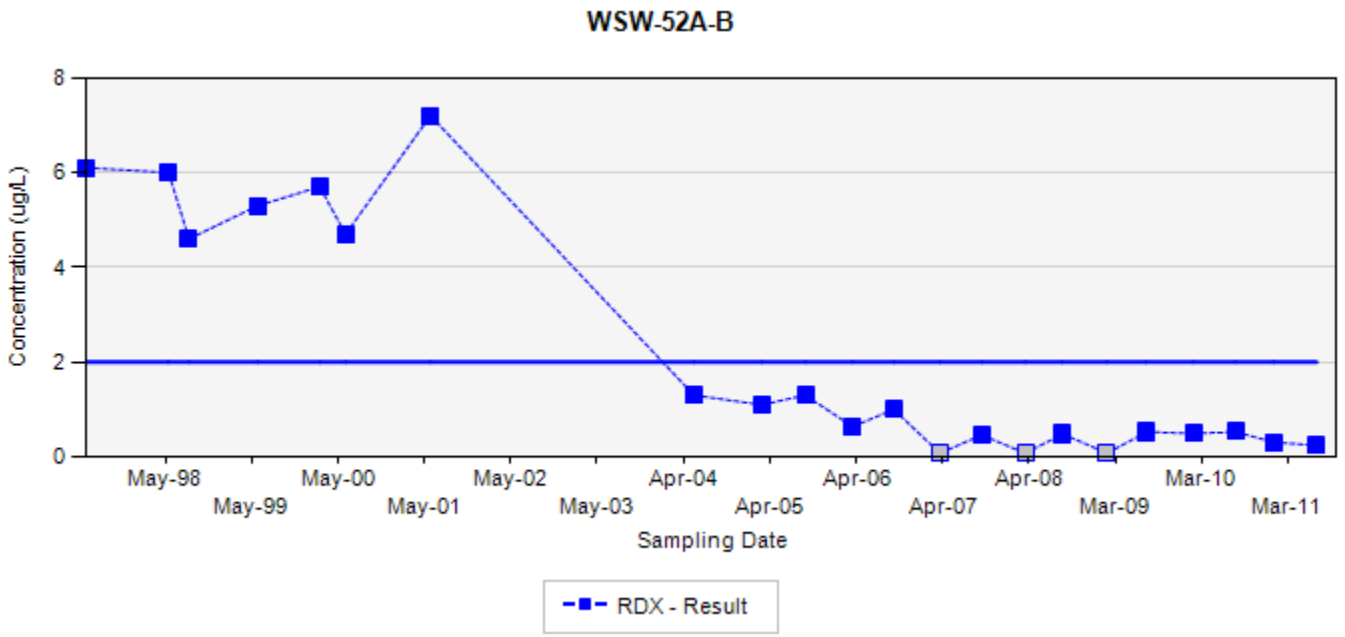

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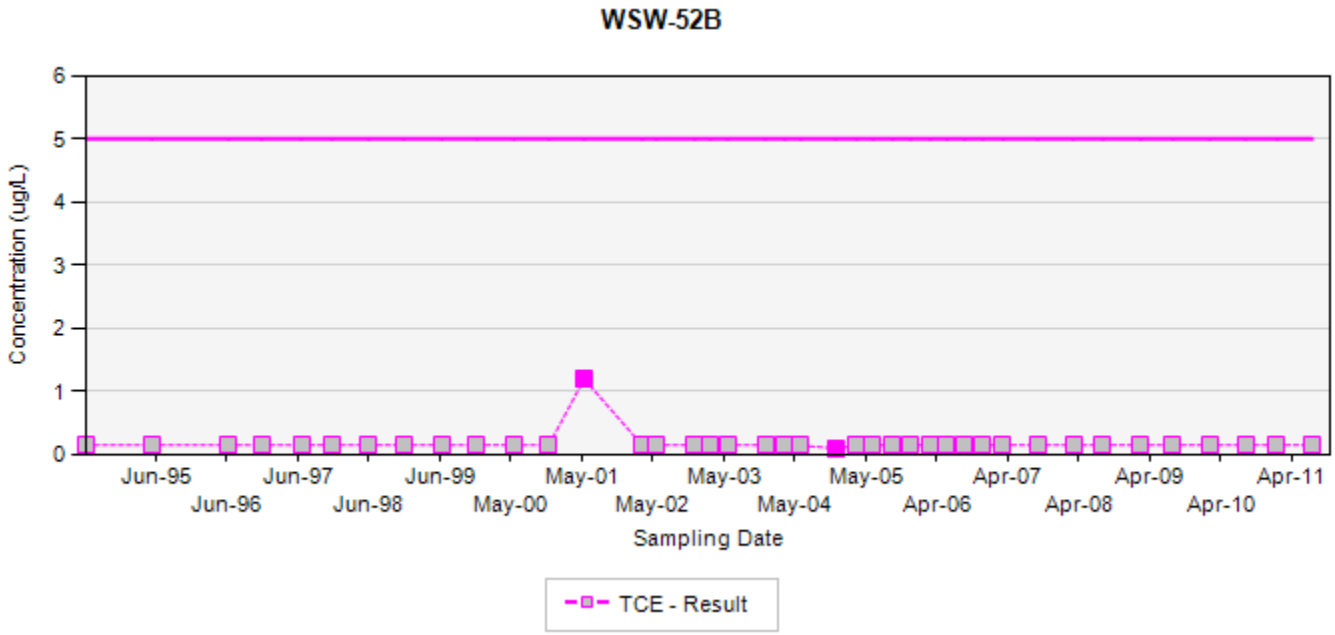

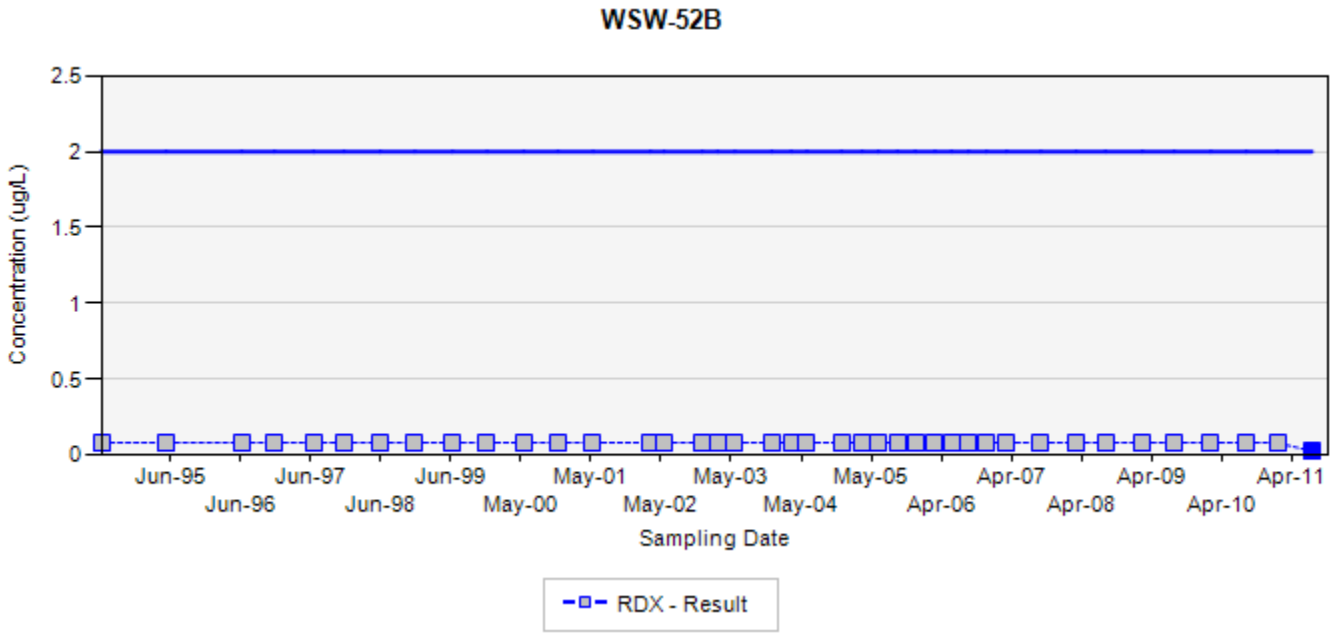

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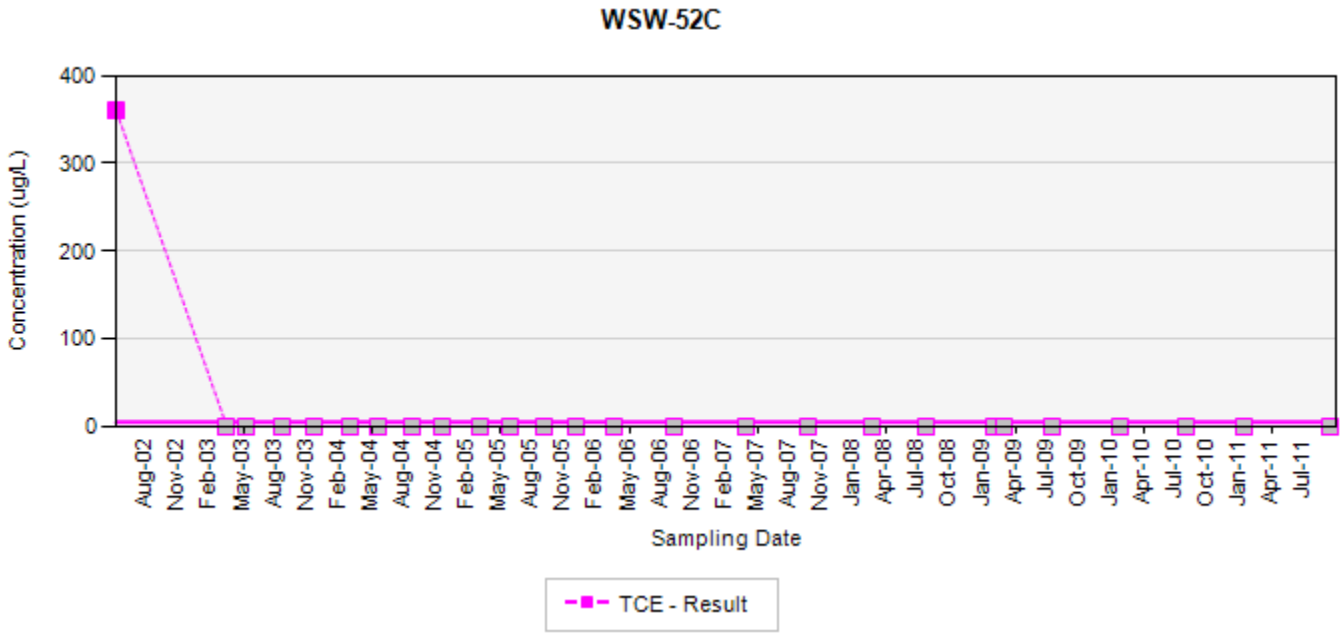

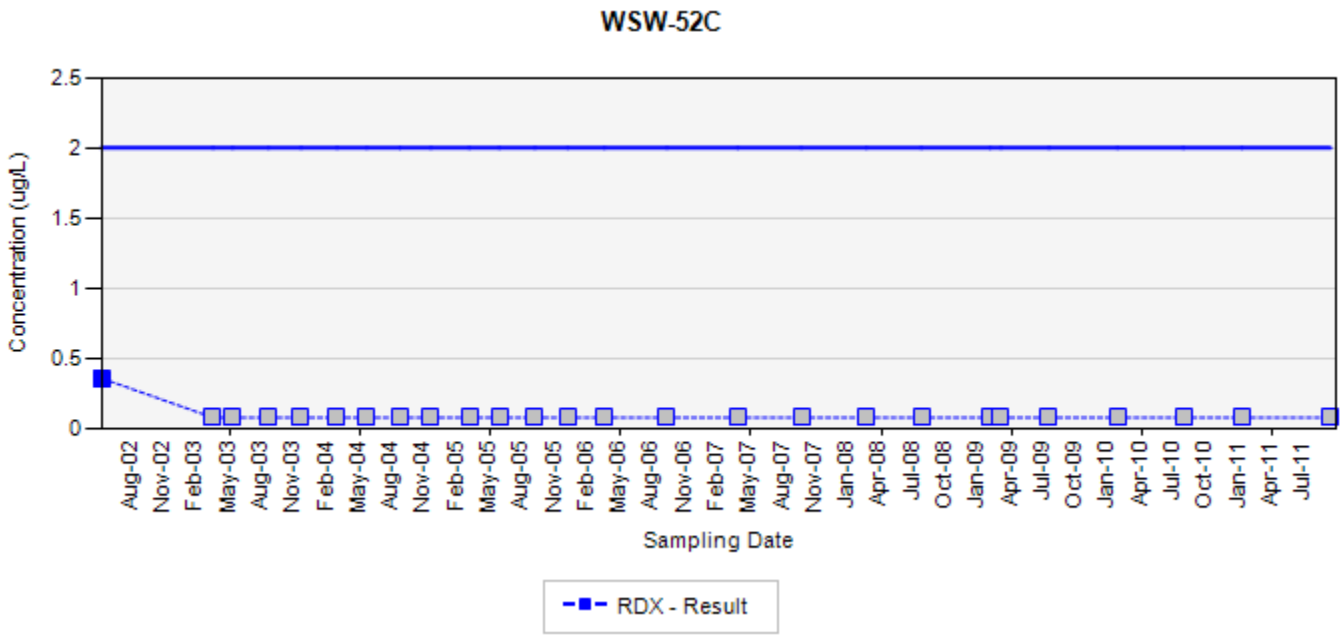

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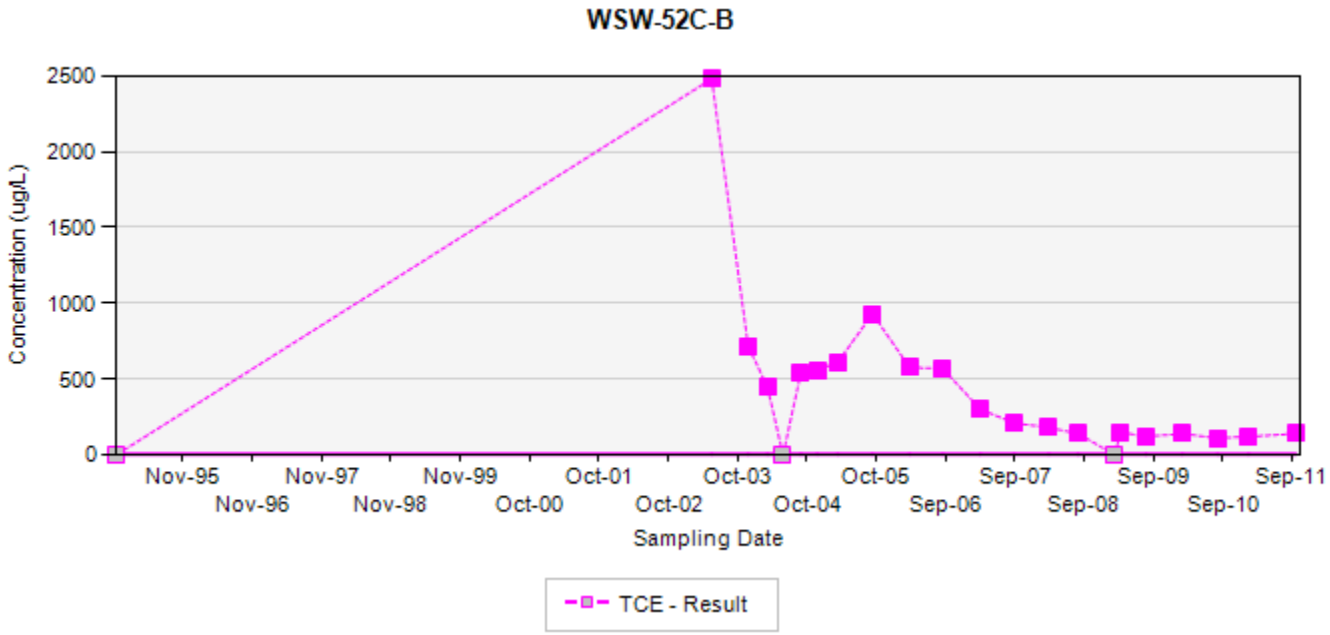

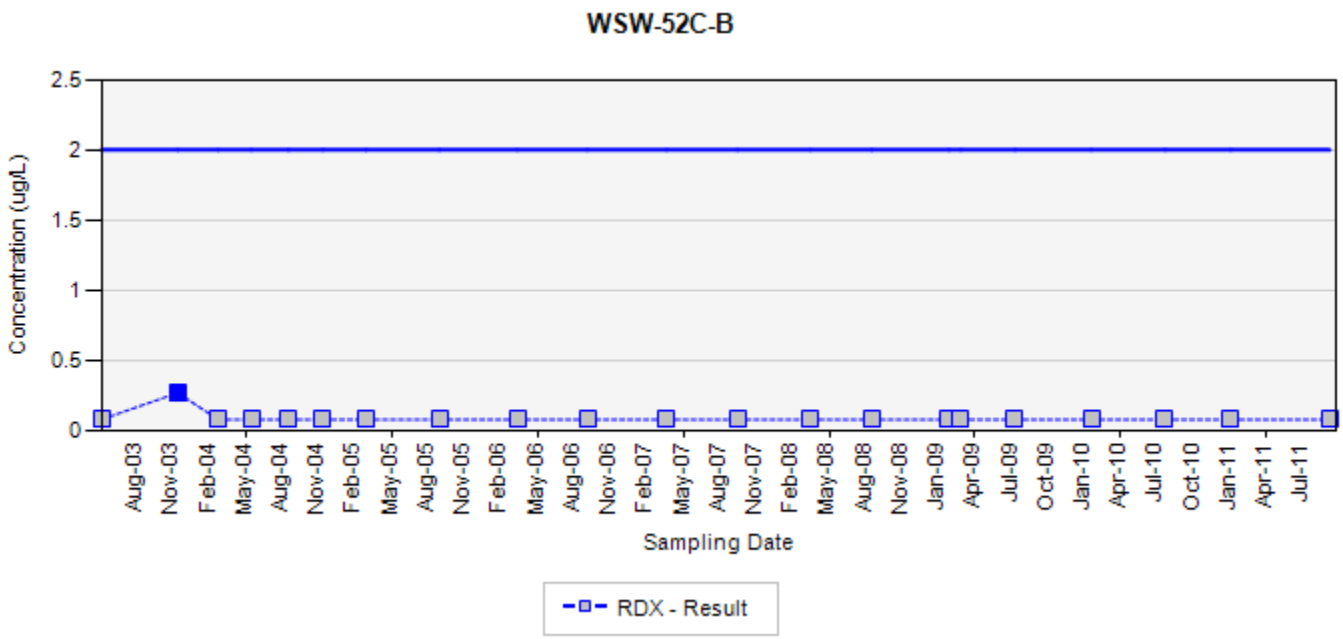

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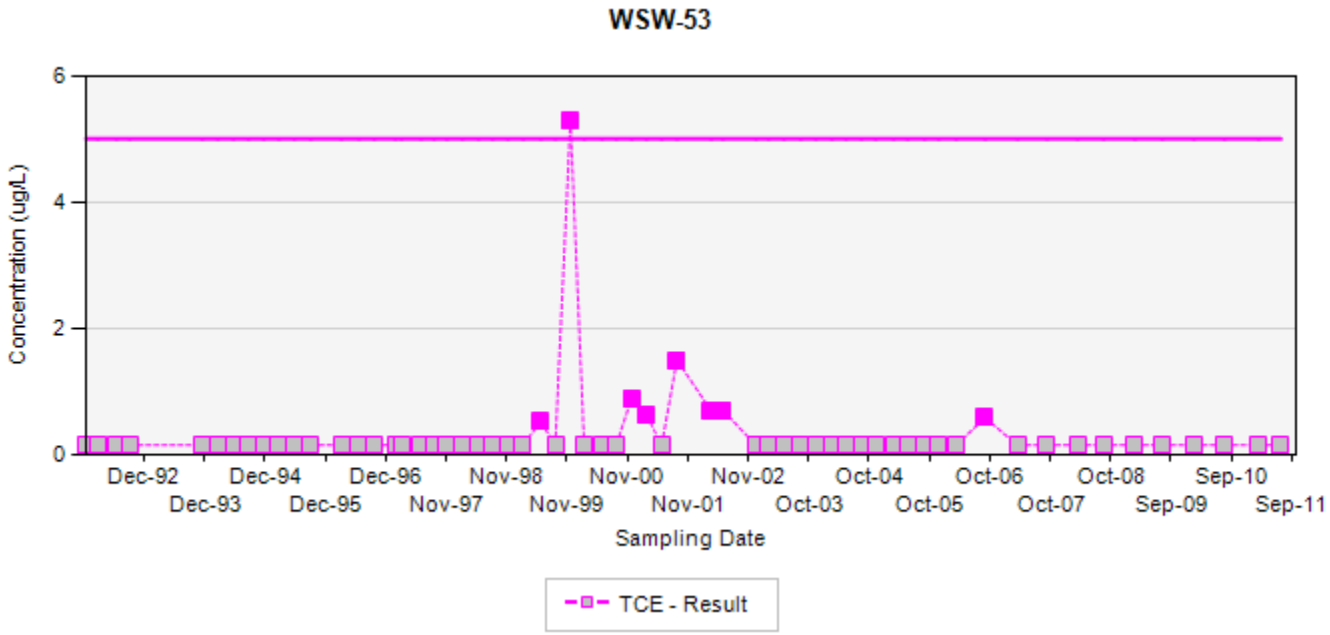

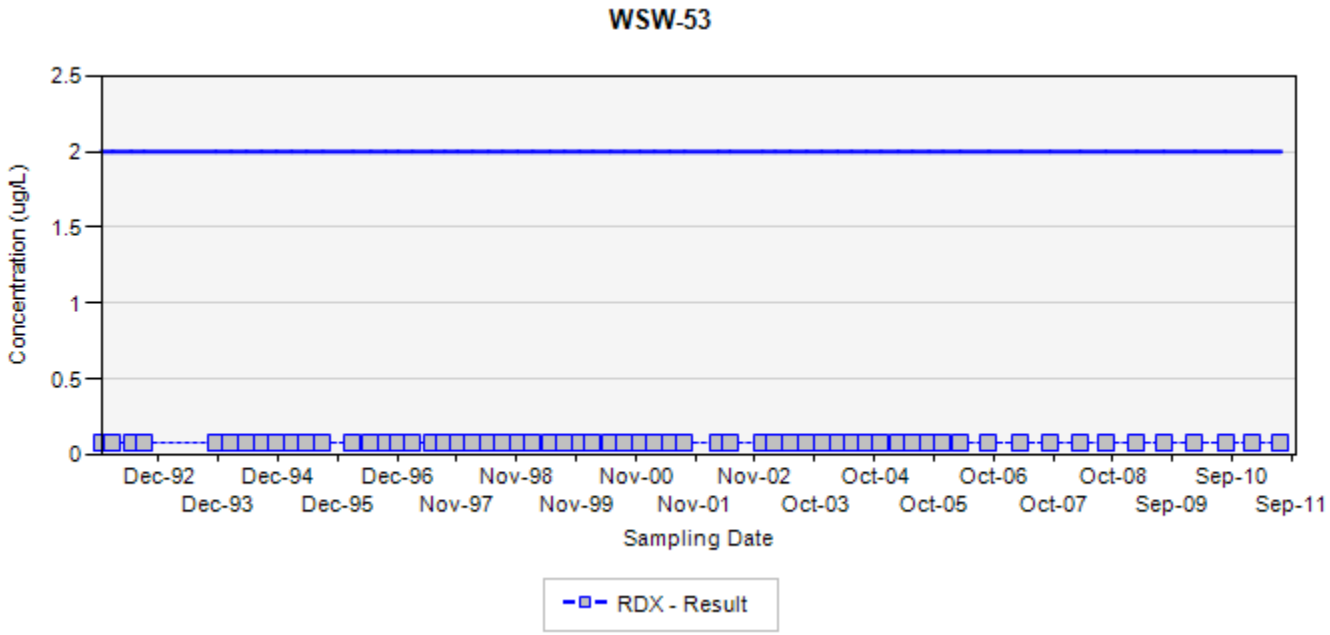

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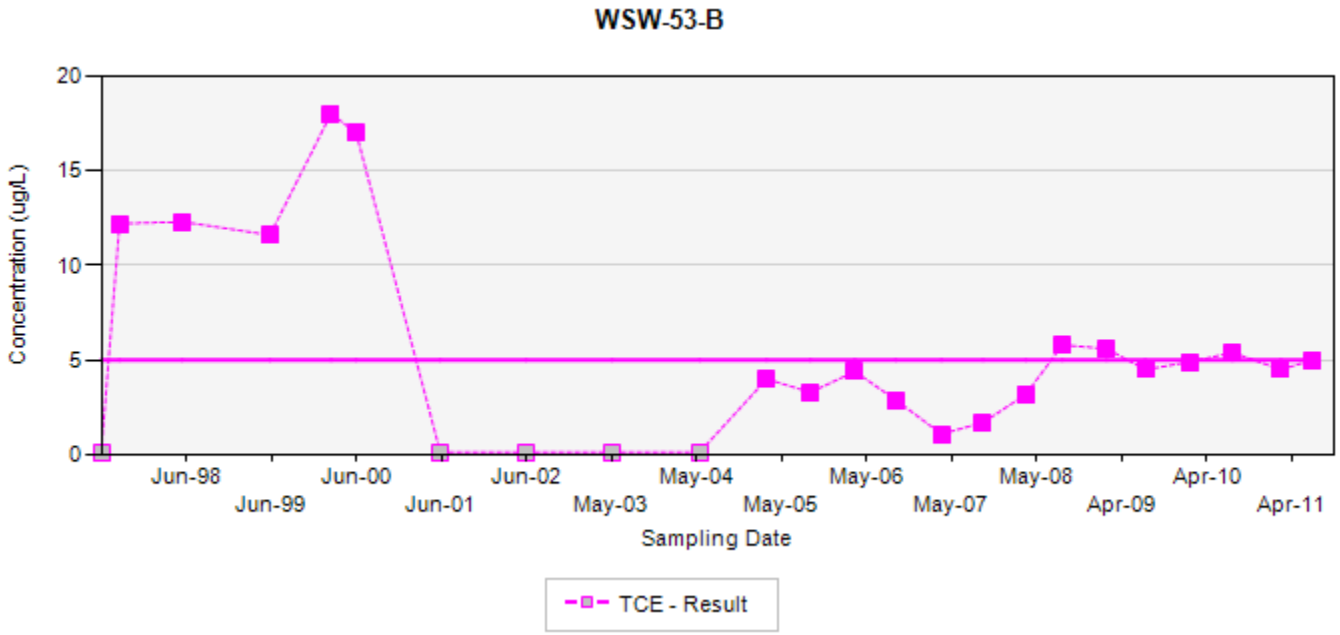

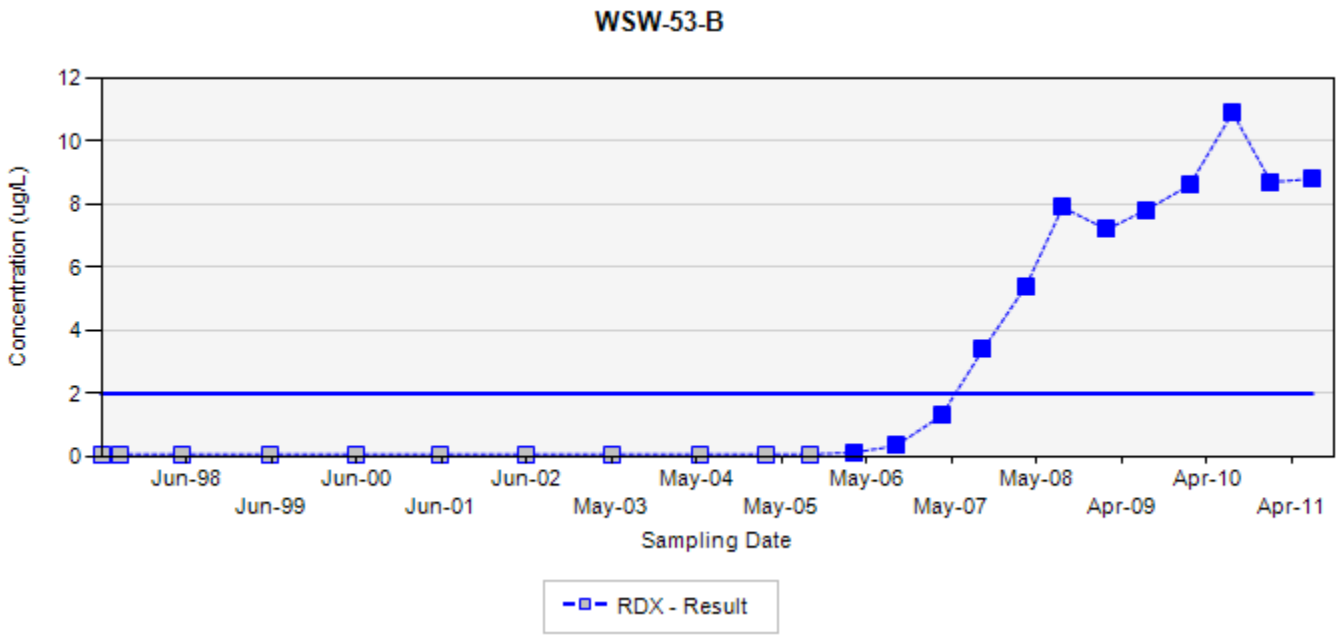

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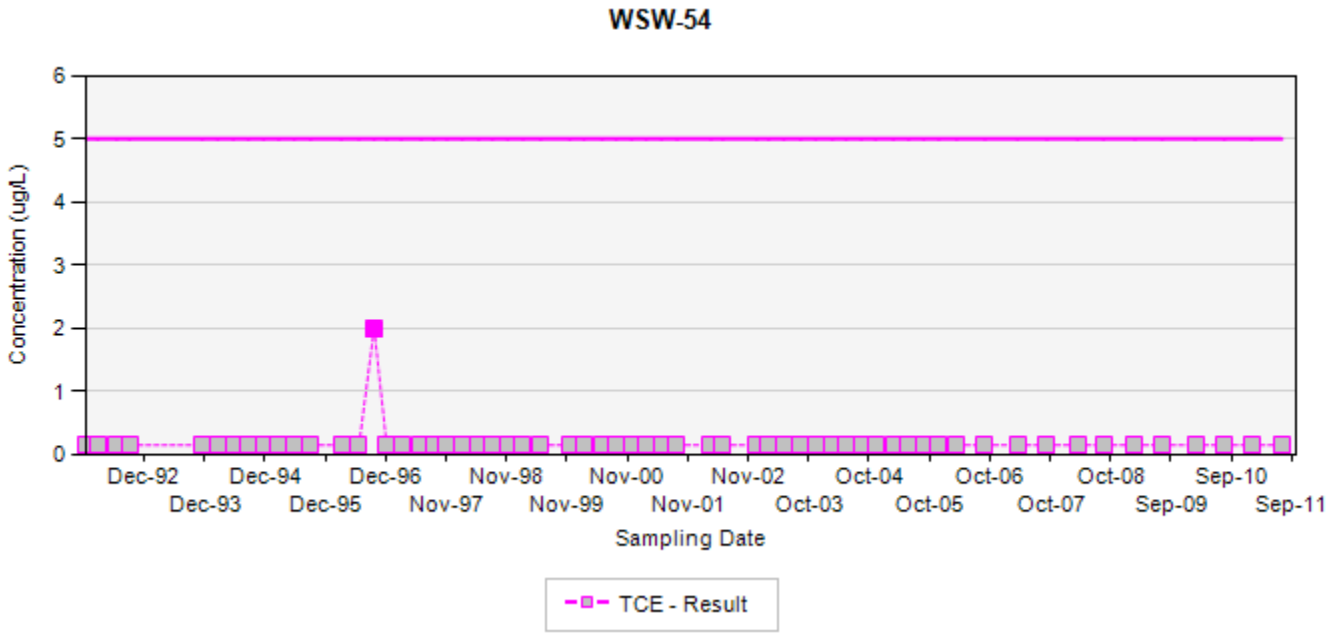

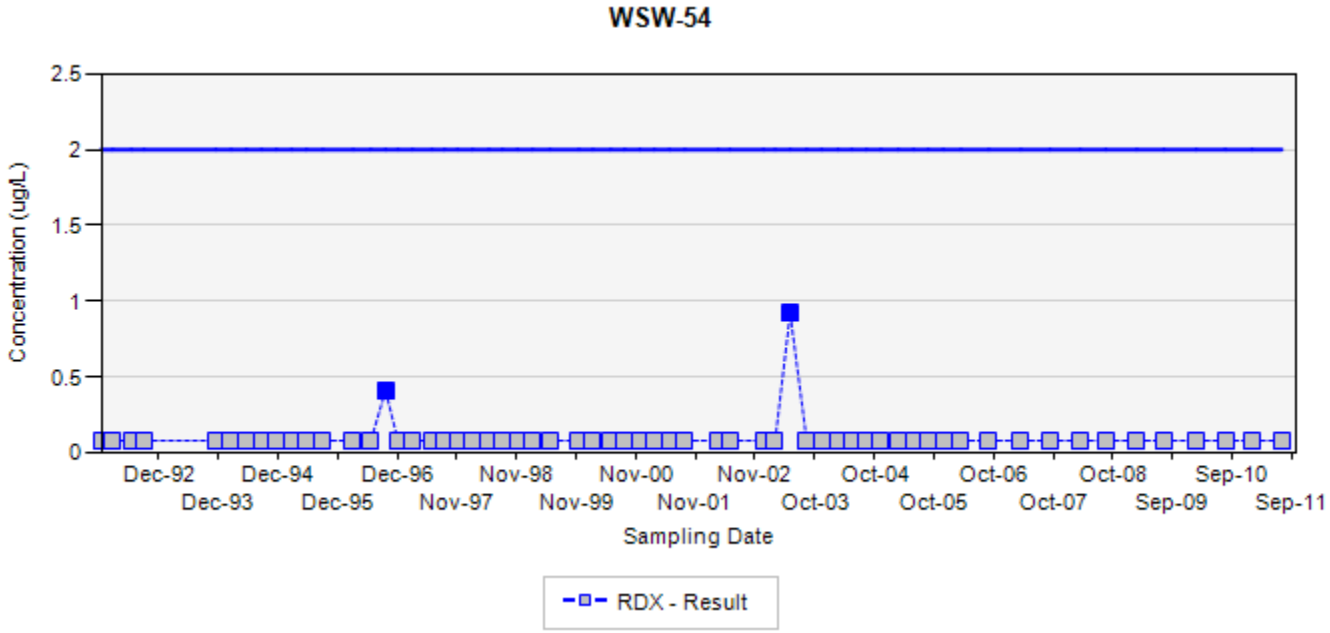

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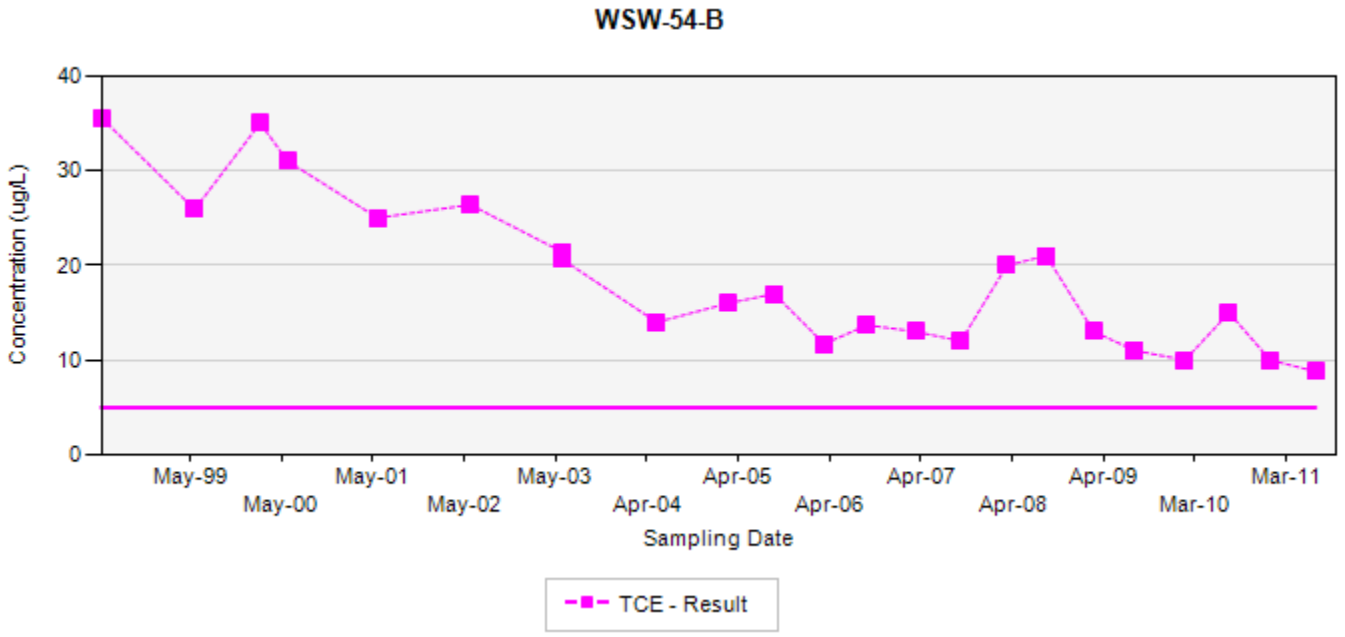

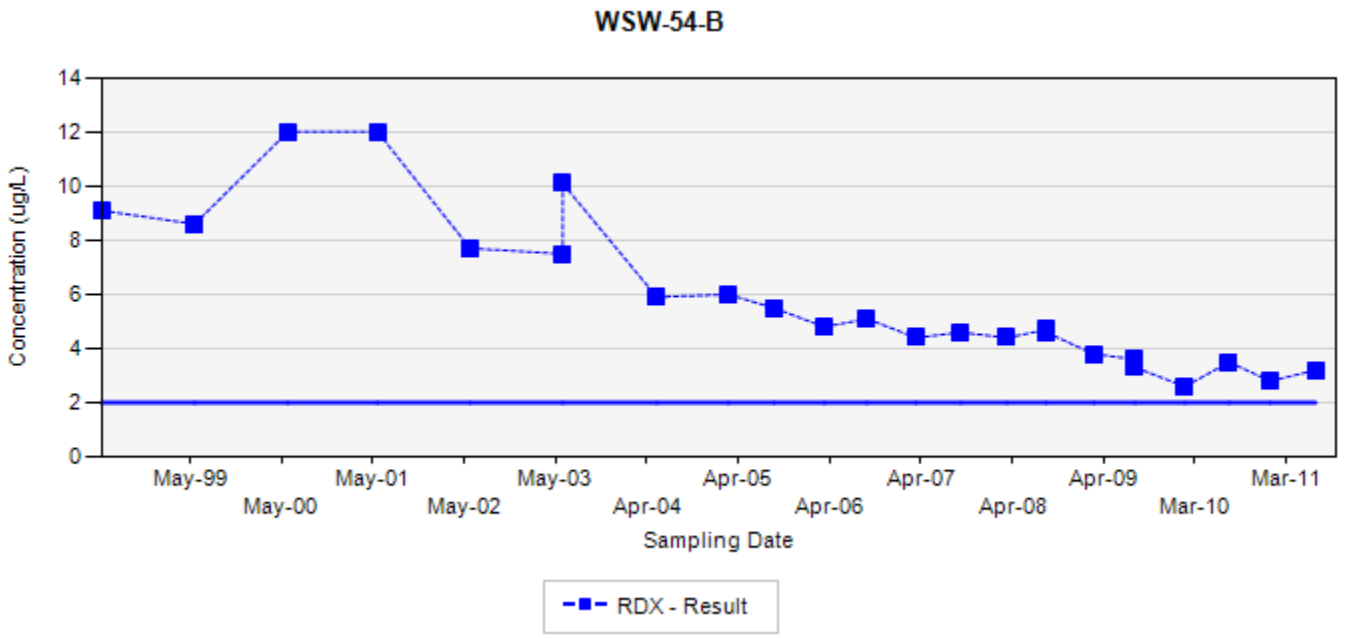

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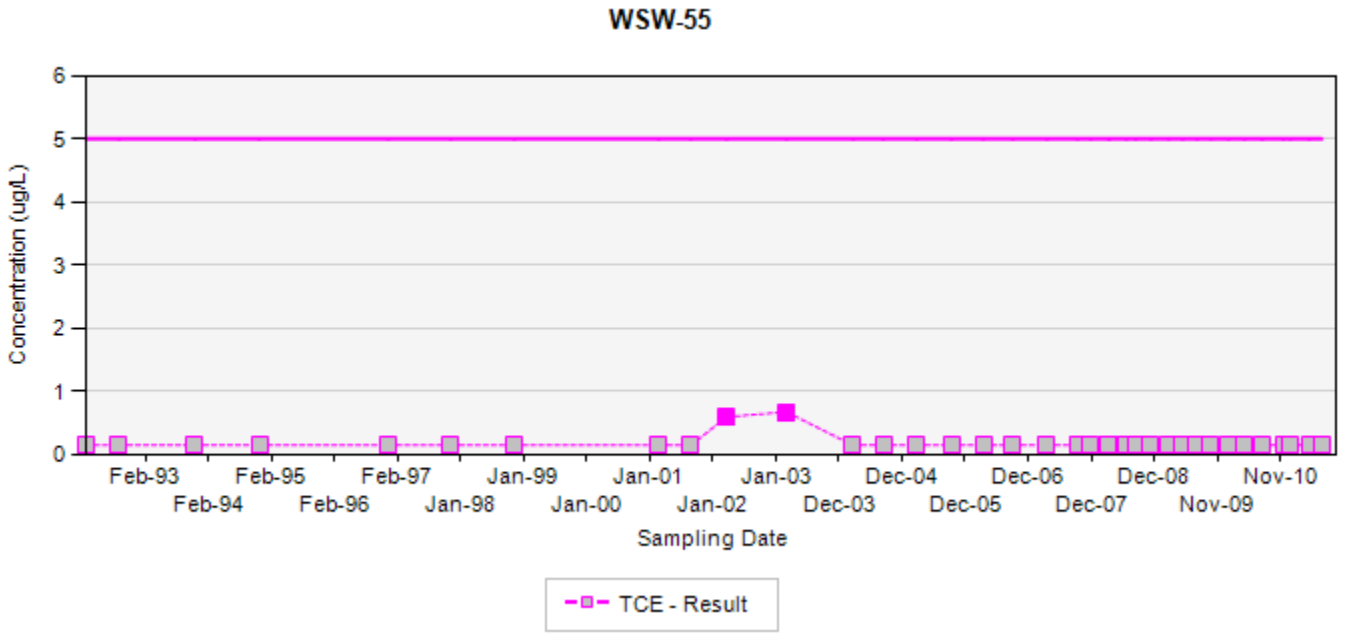

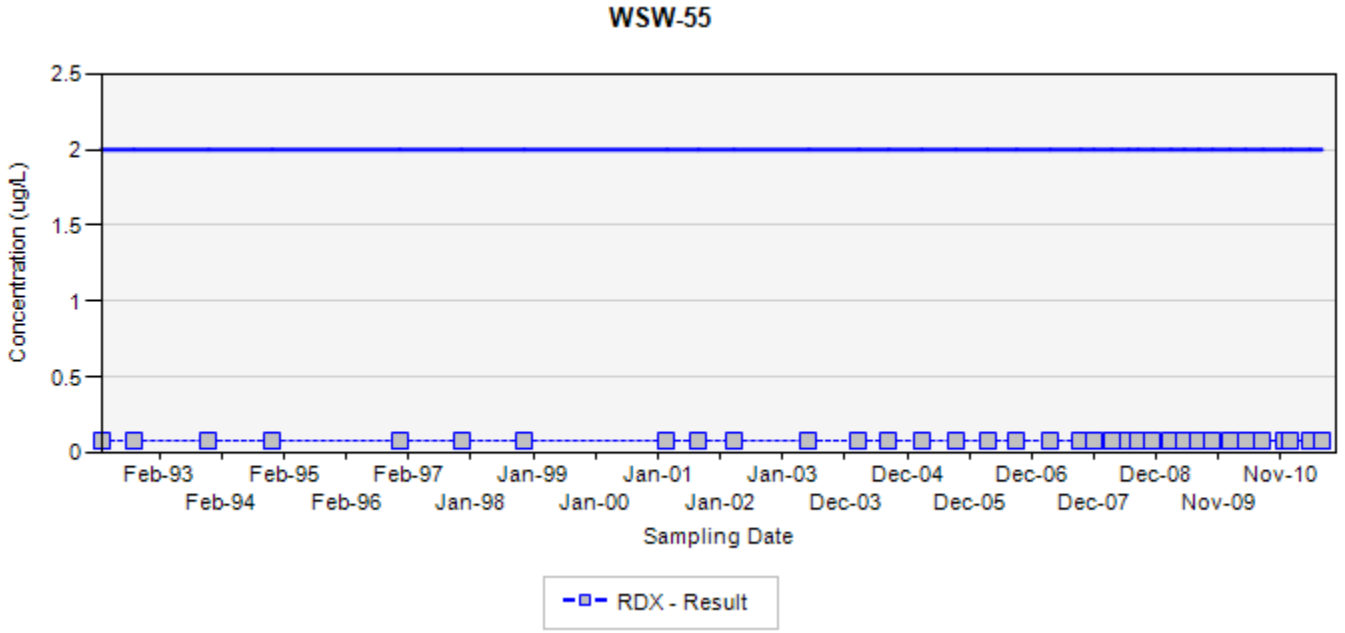

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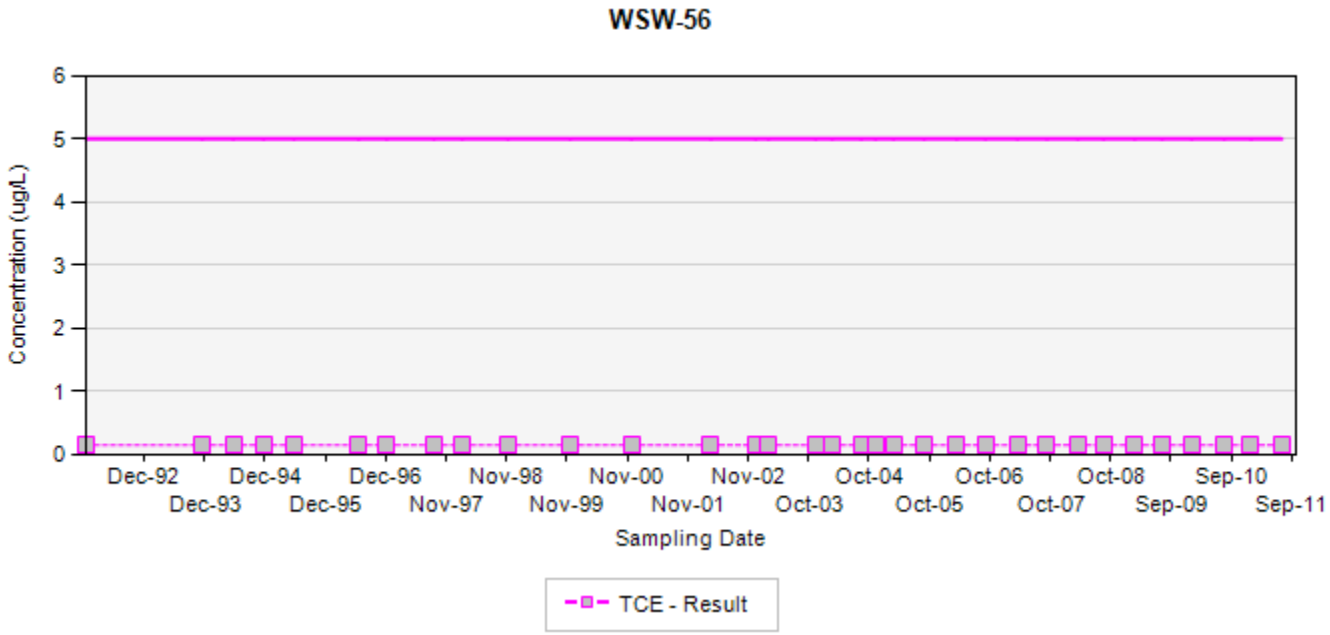

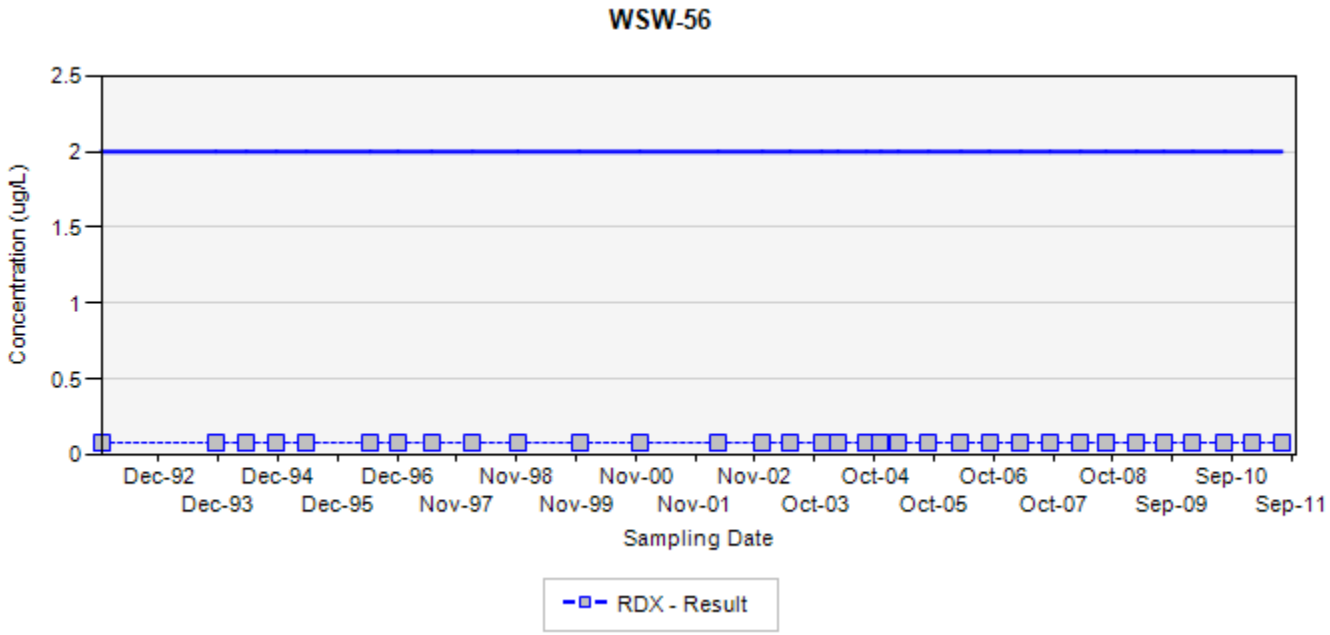

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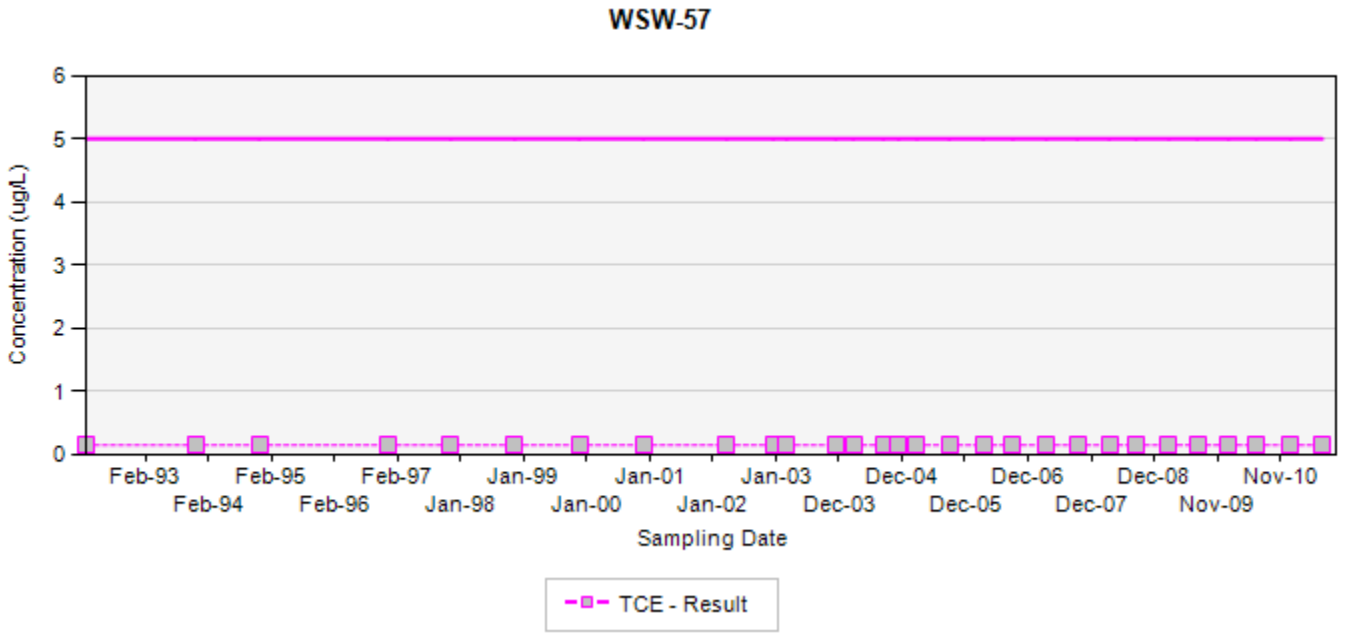

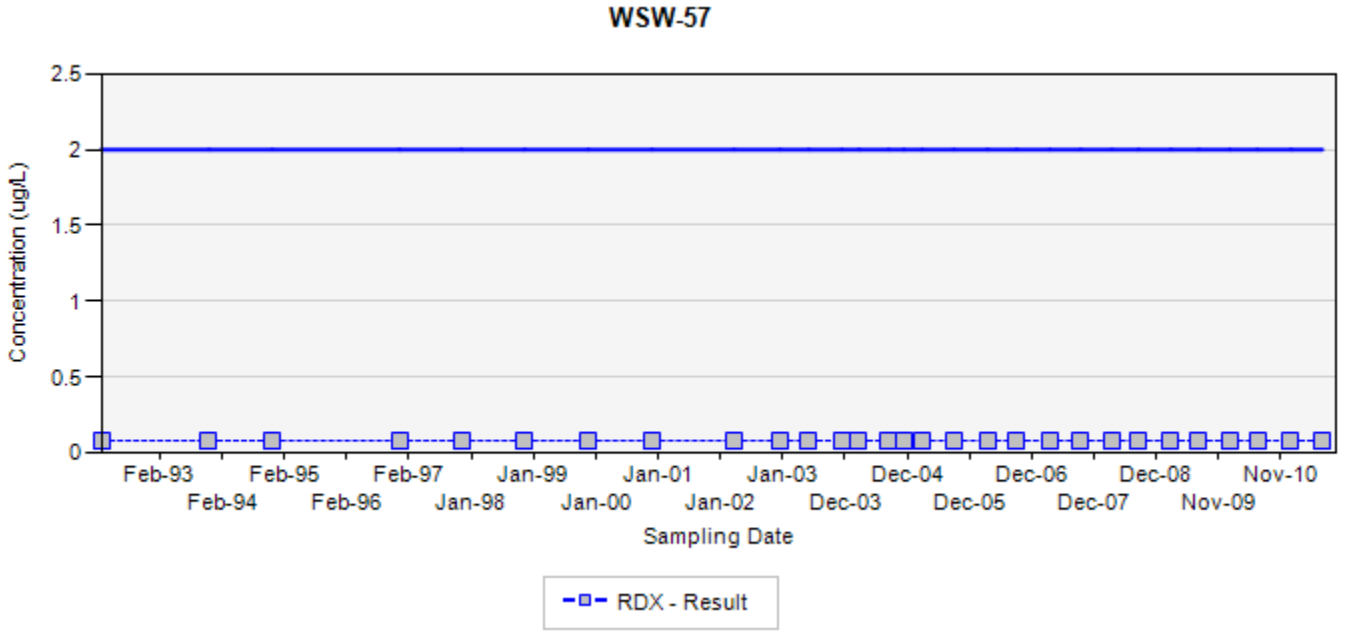

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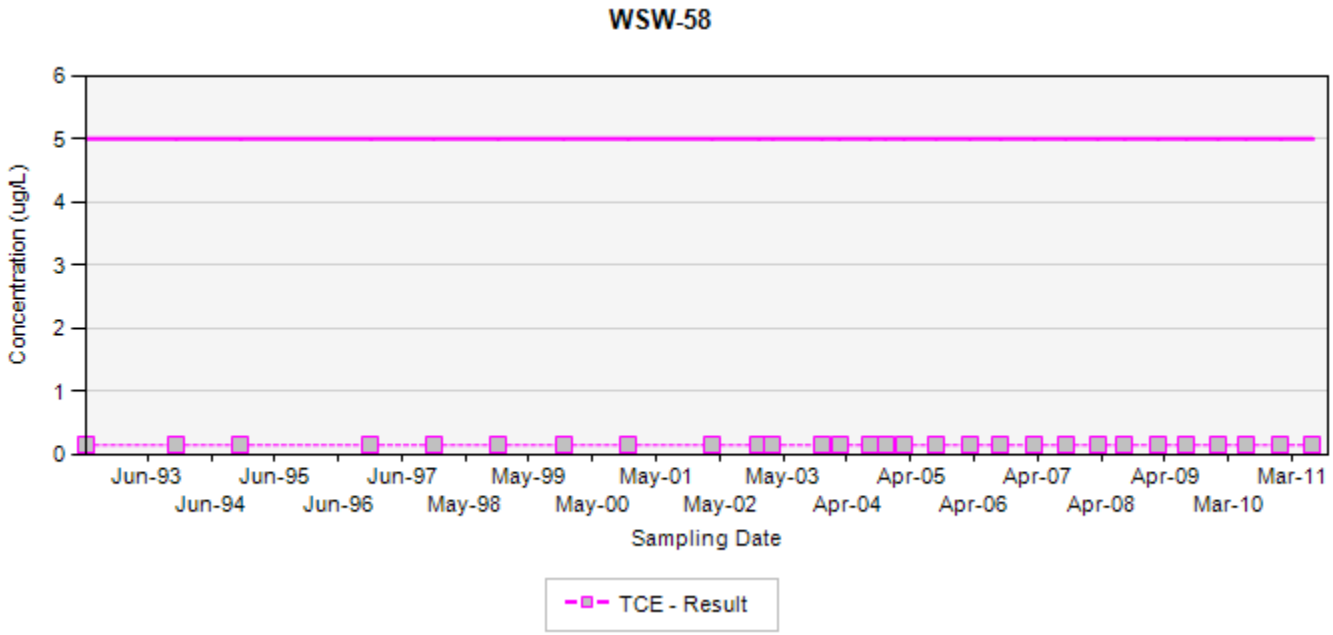

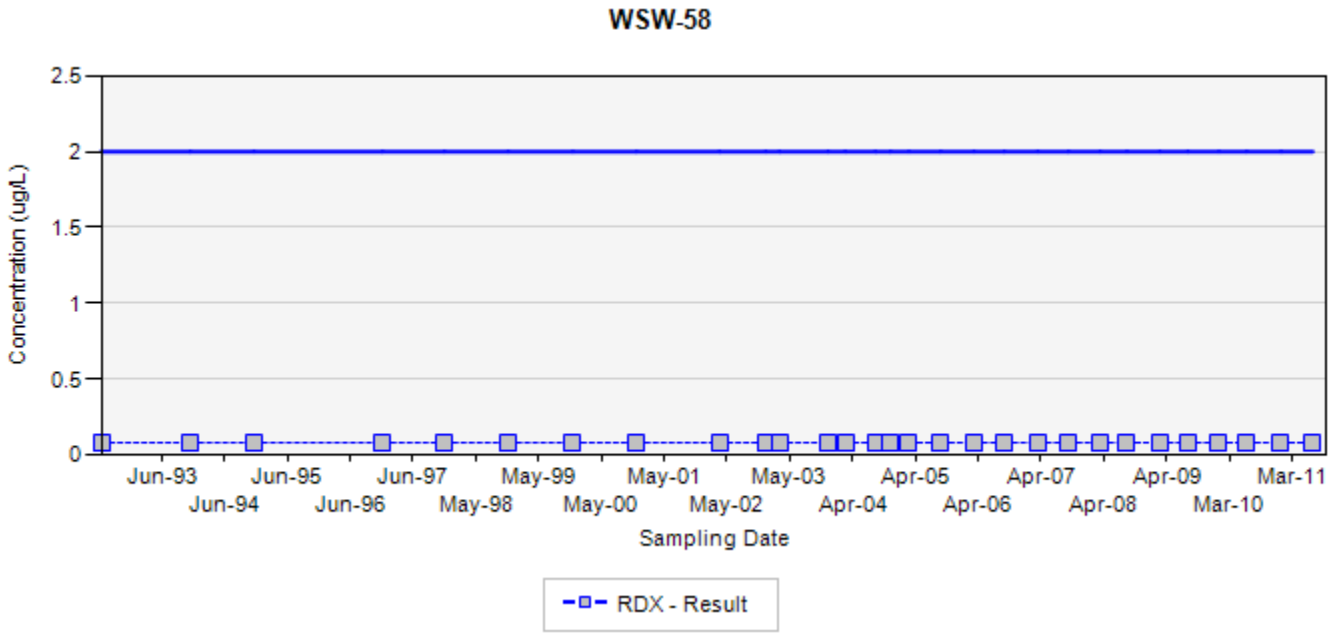

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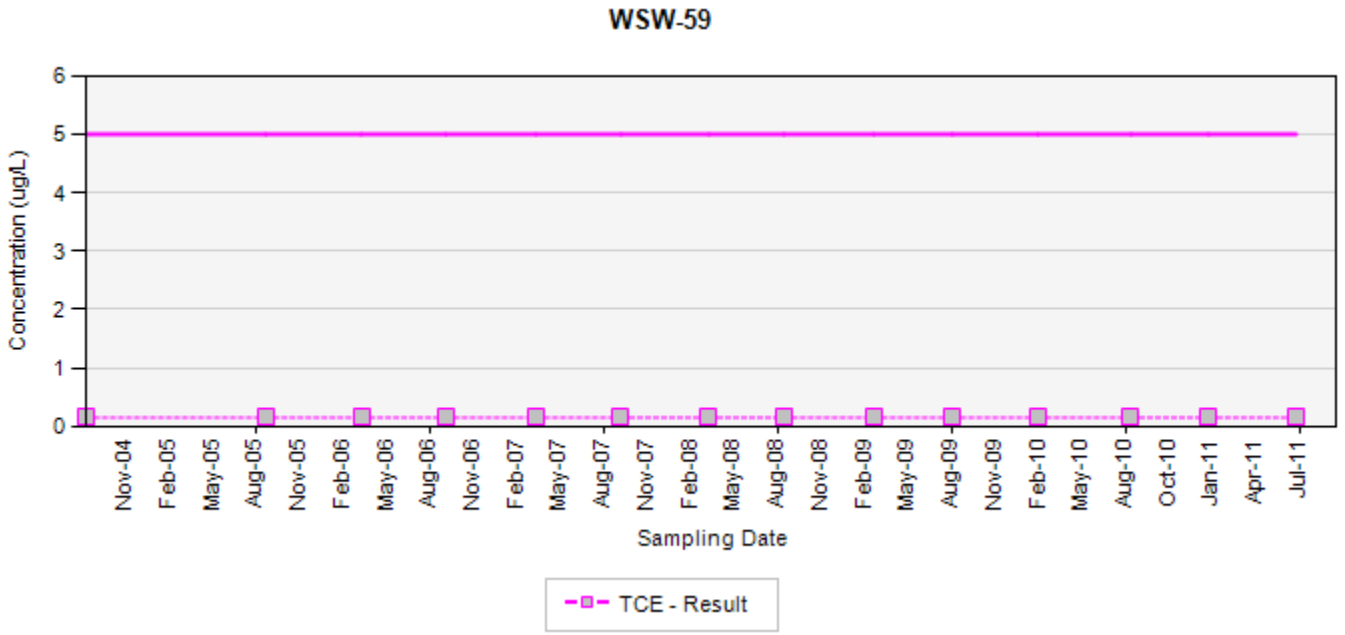
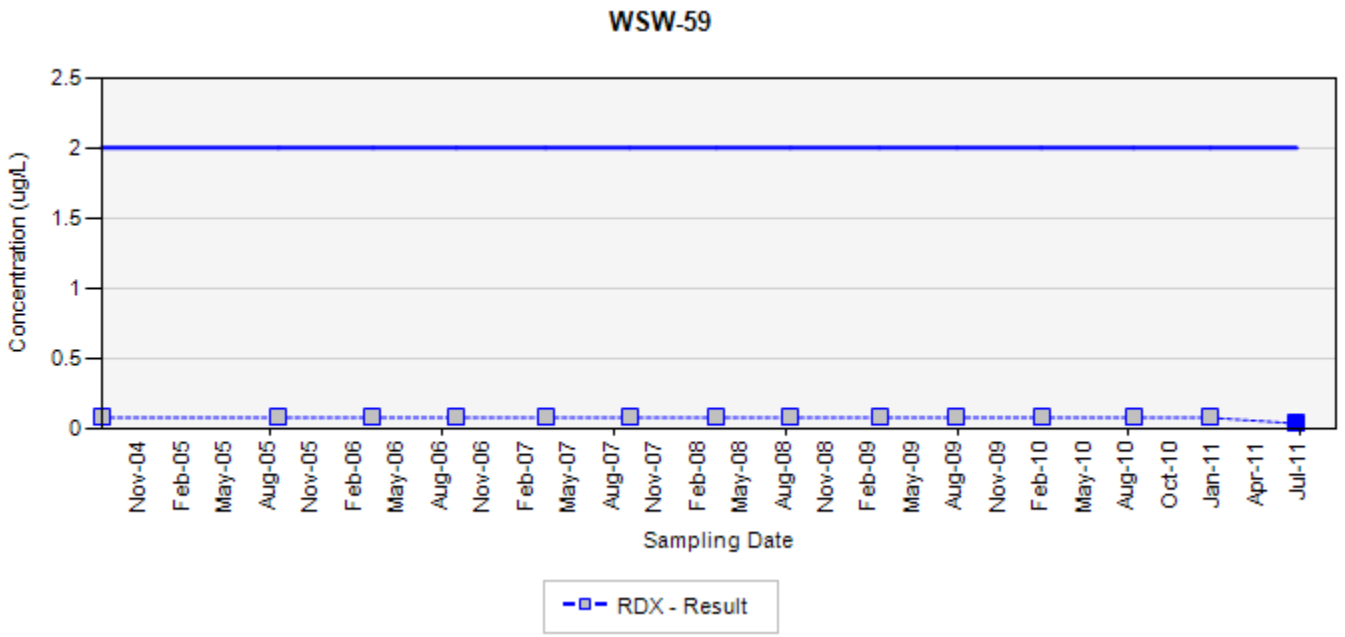
Former Nebraska Ordnance Plant, Mead, Nebraska





TCE - trichloroethene
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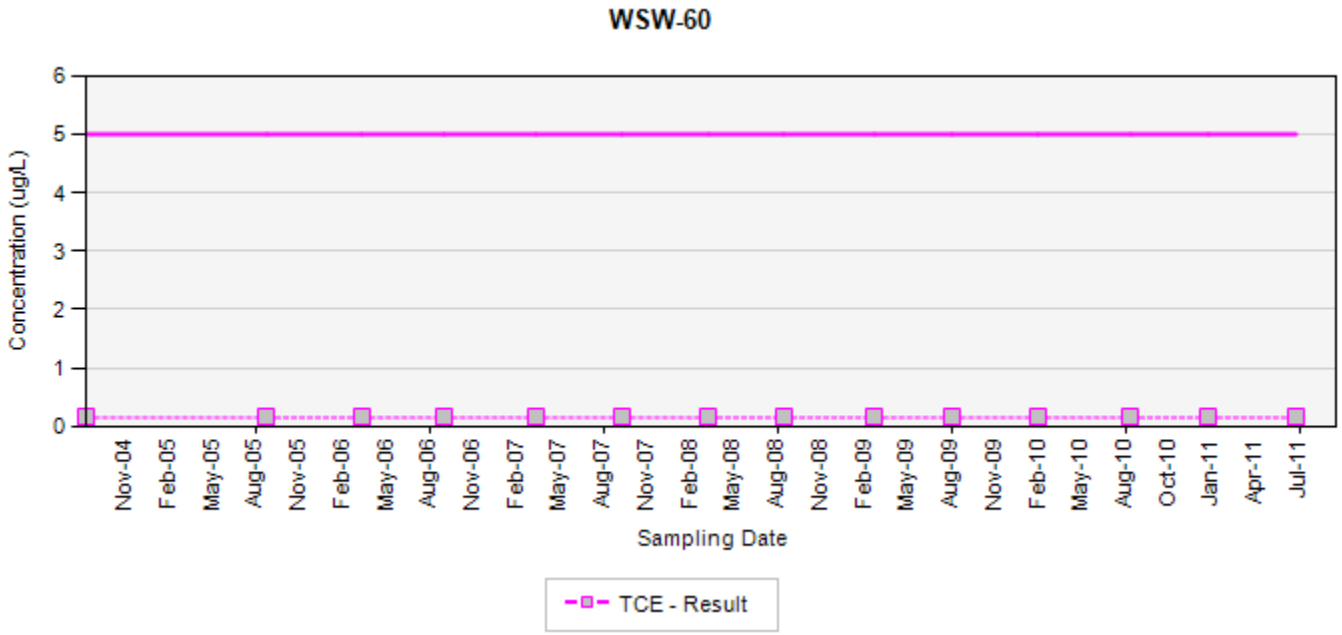

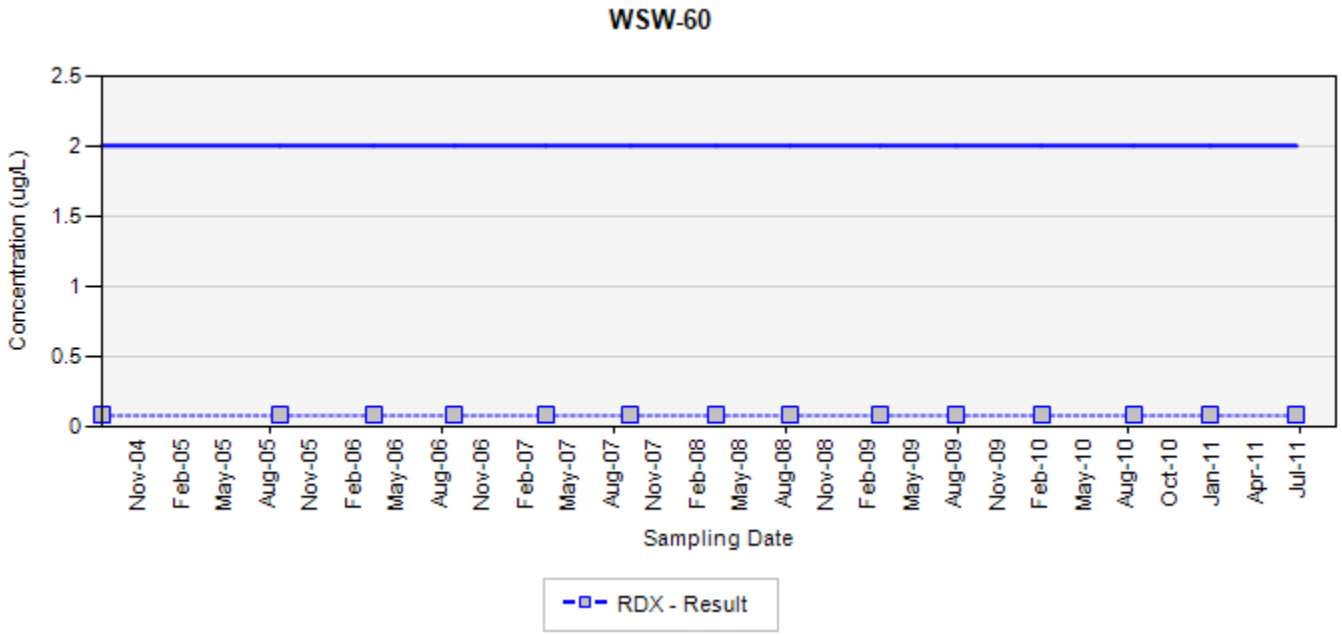

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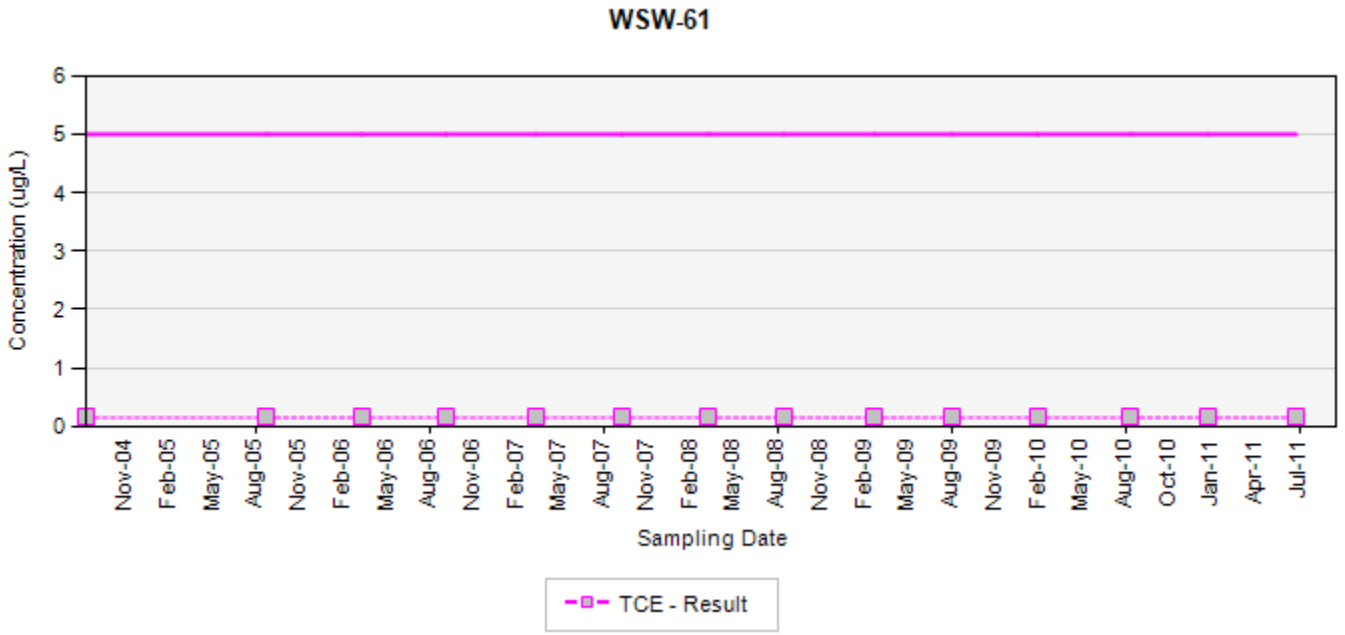

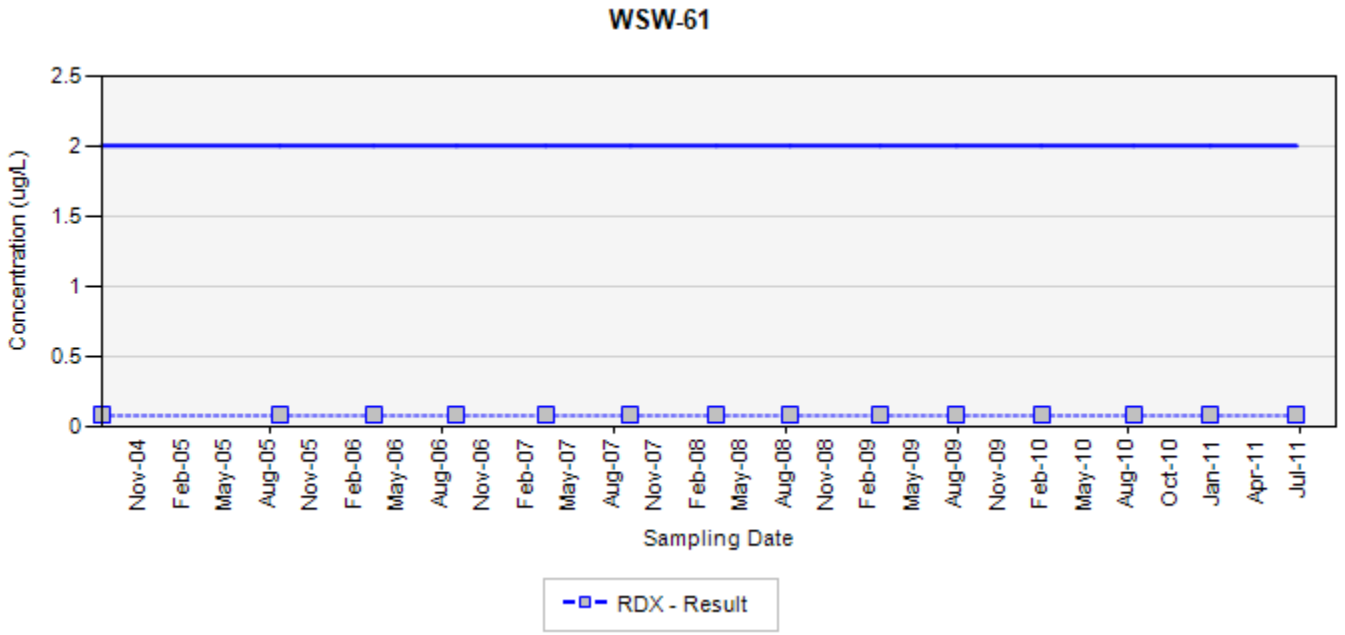

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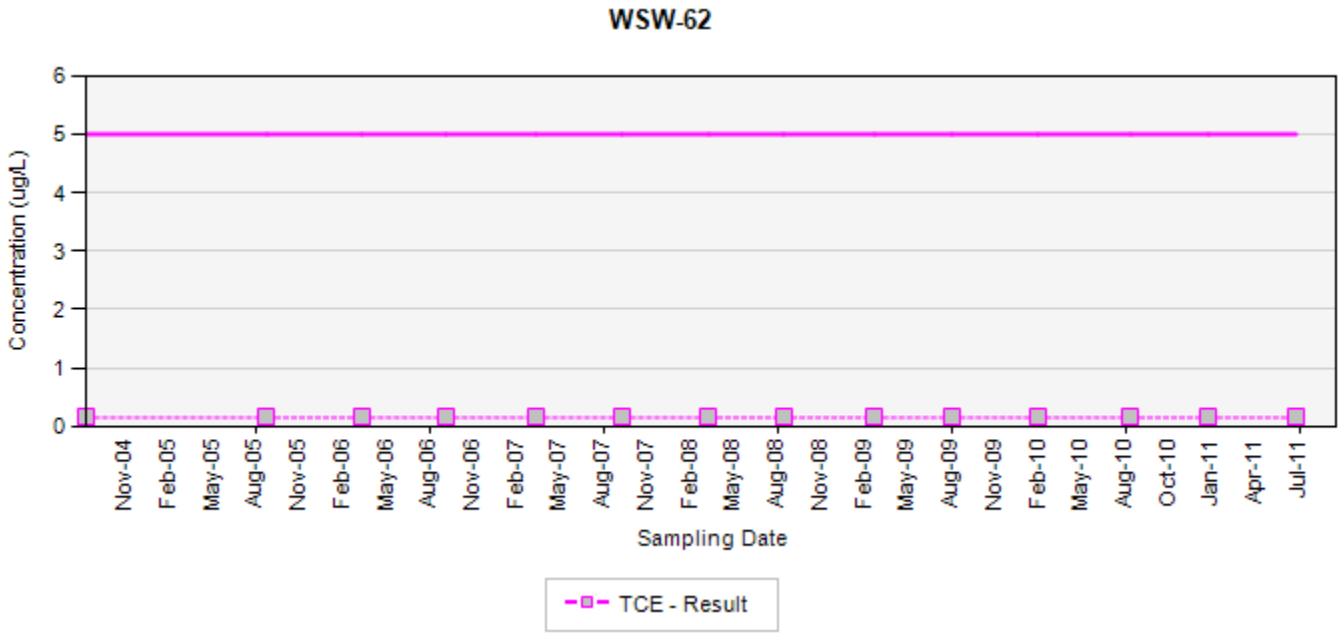

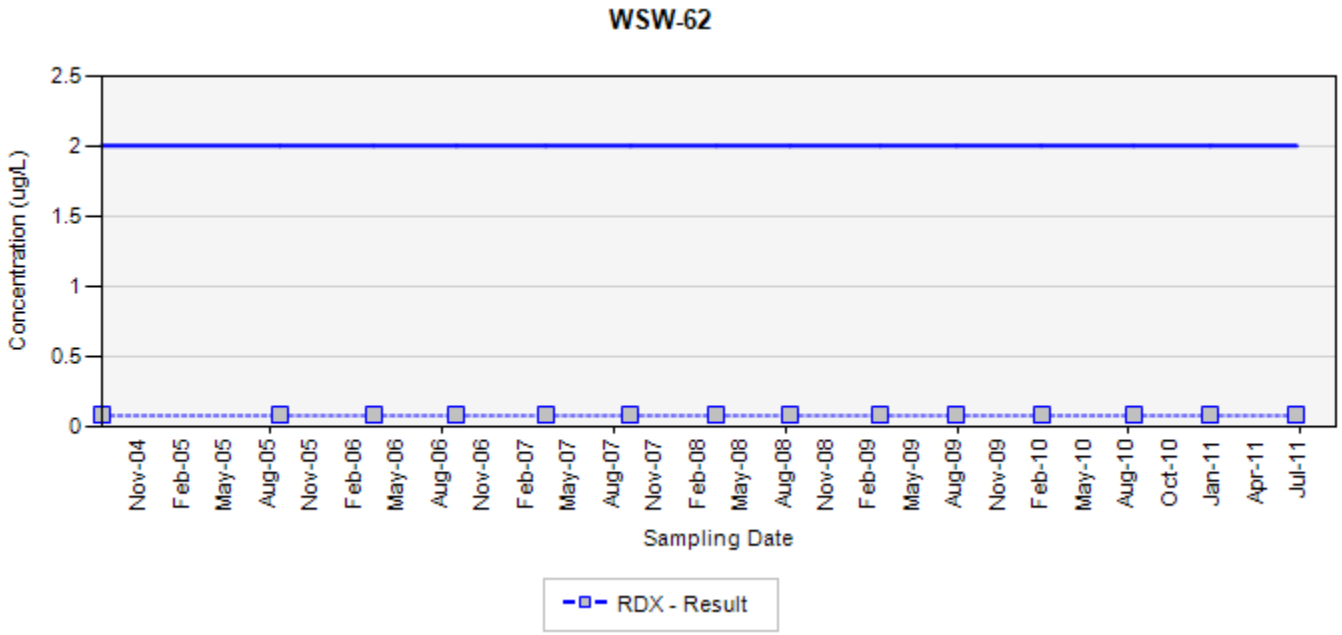

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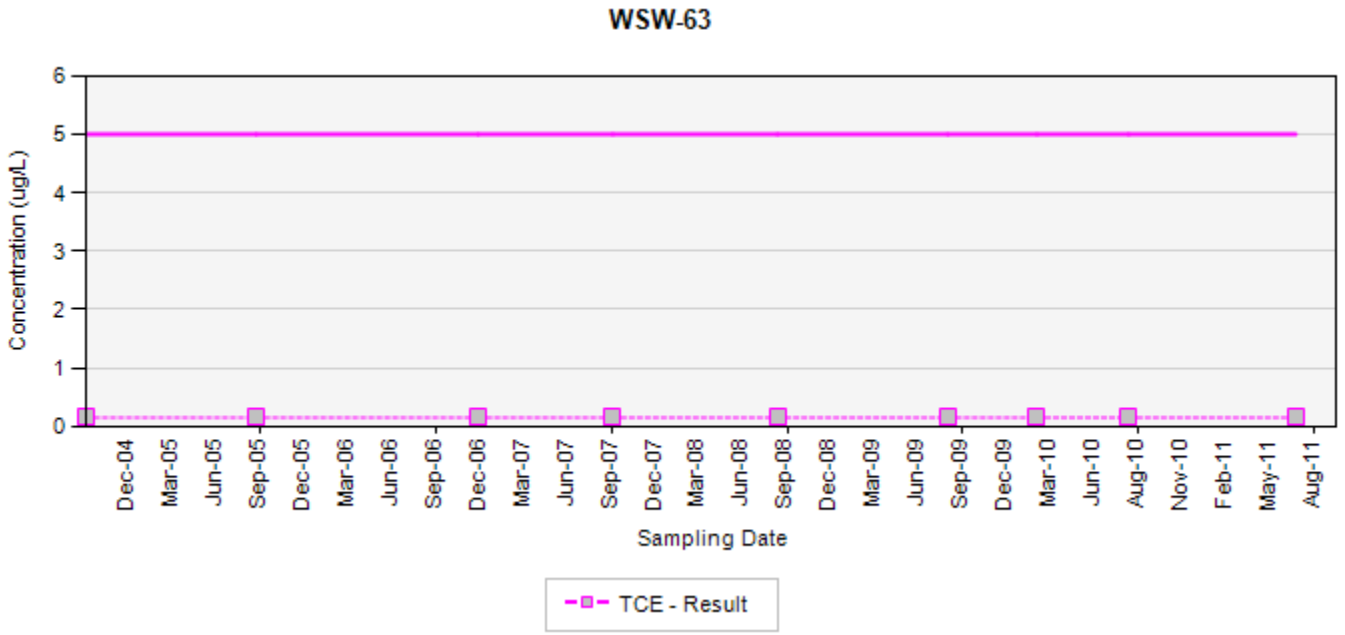

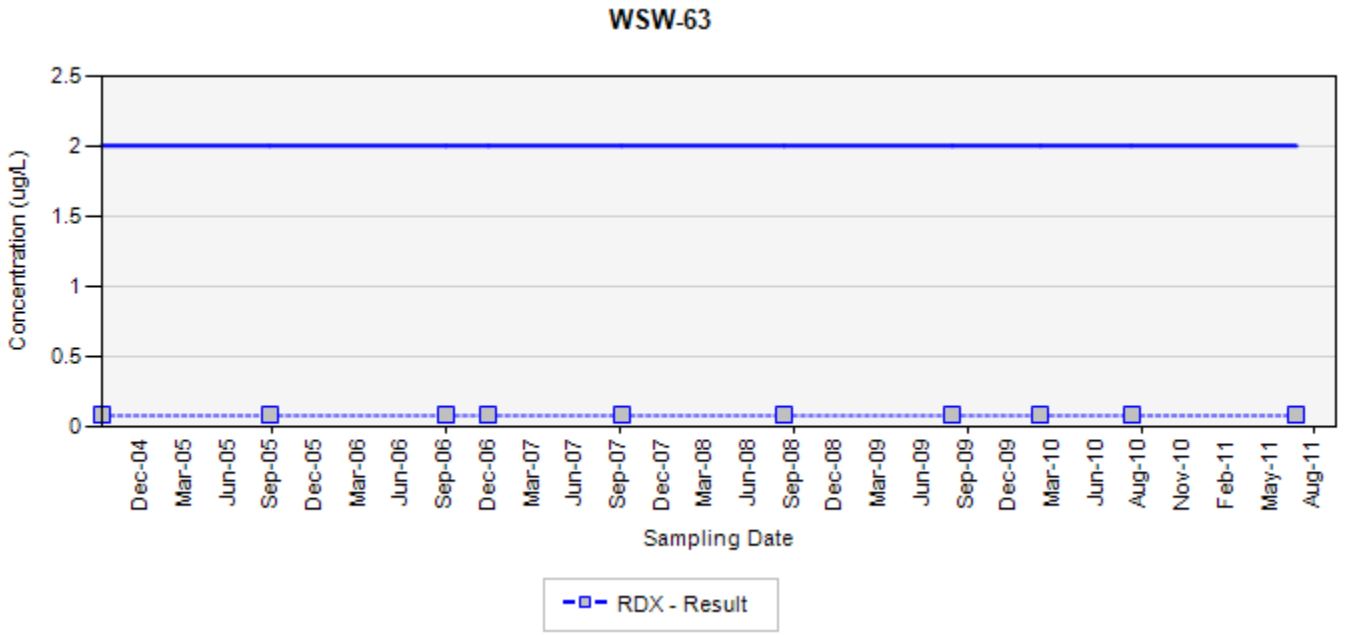

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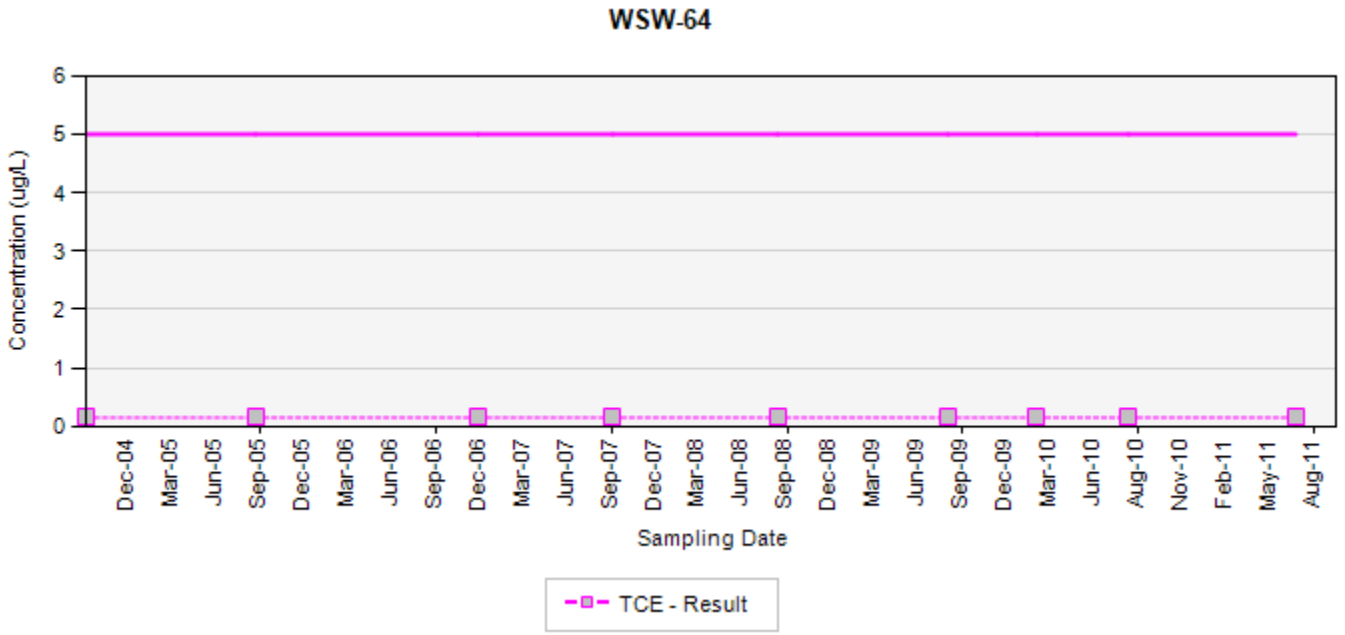

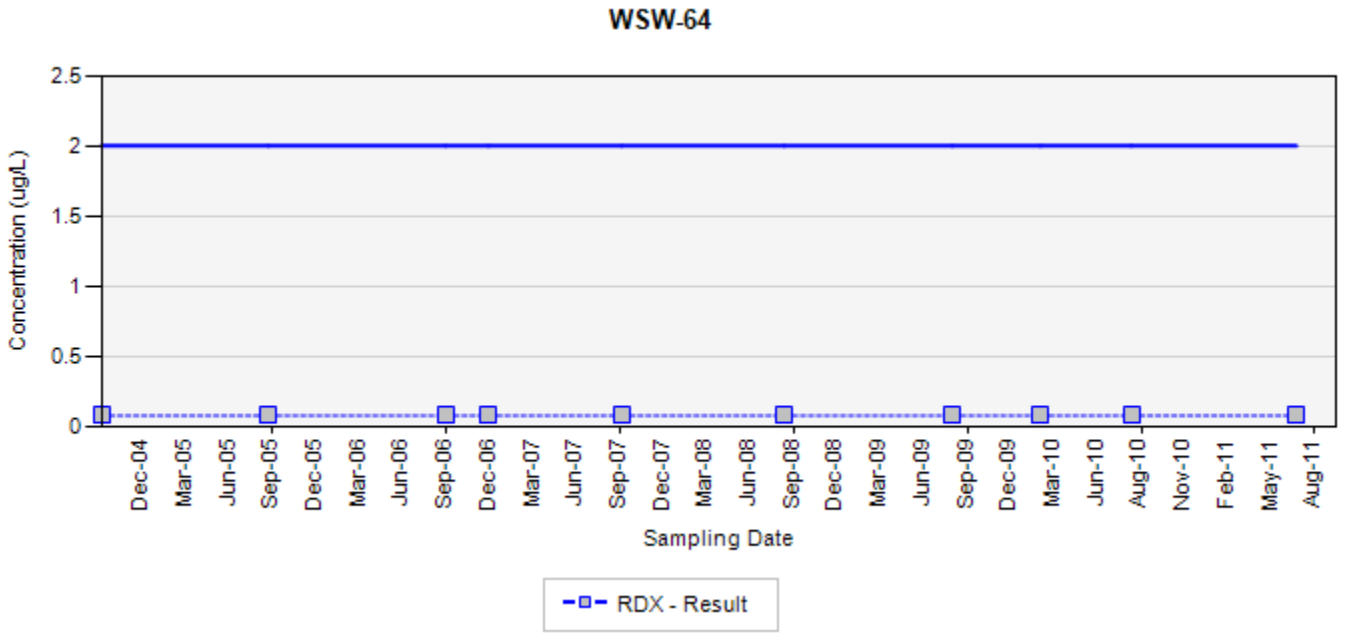

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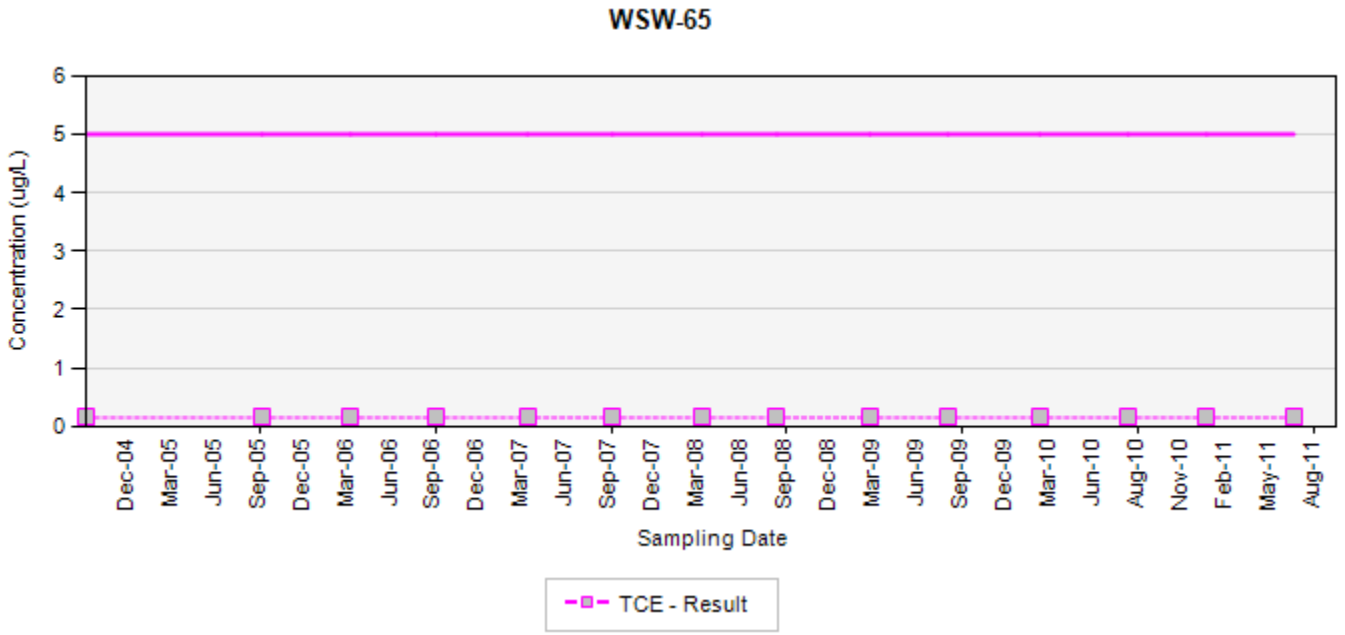

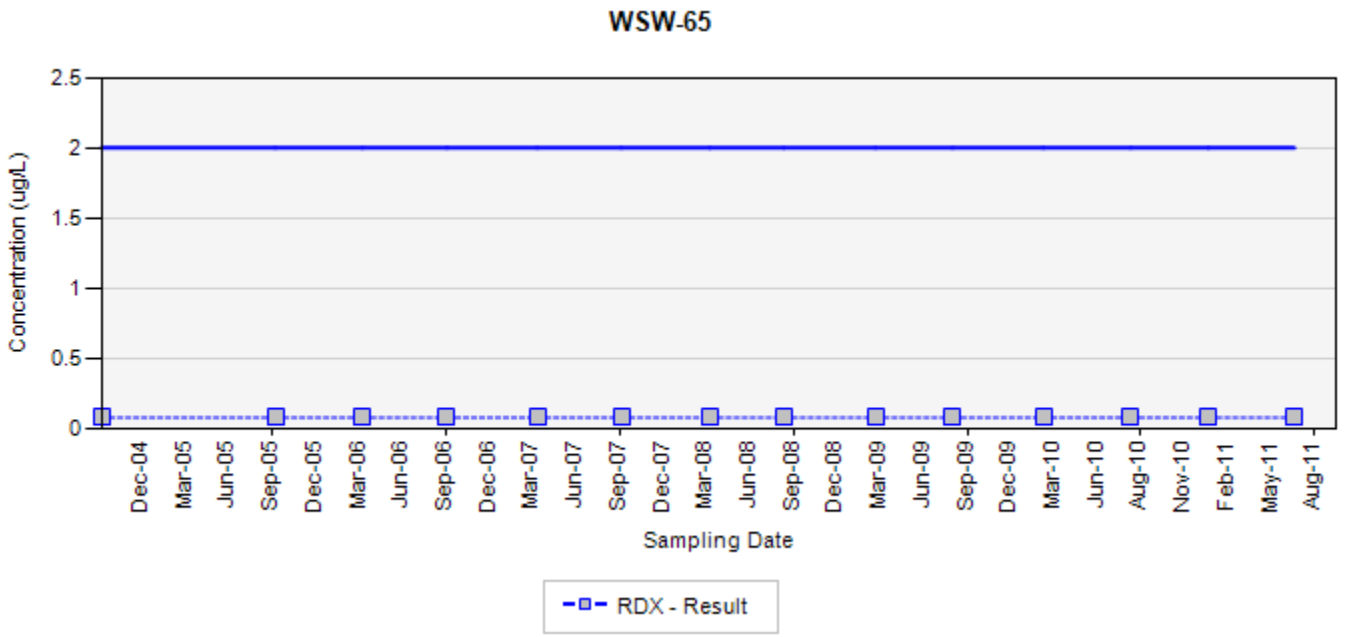

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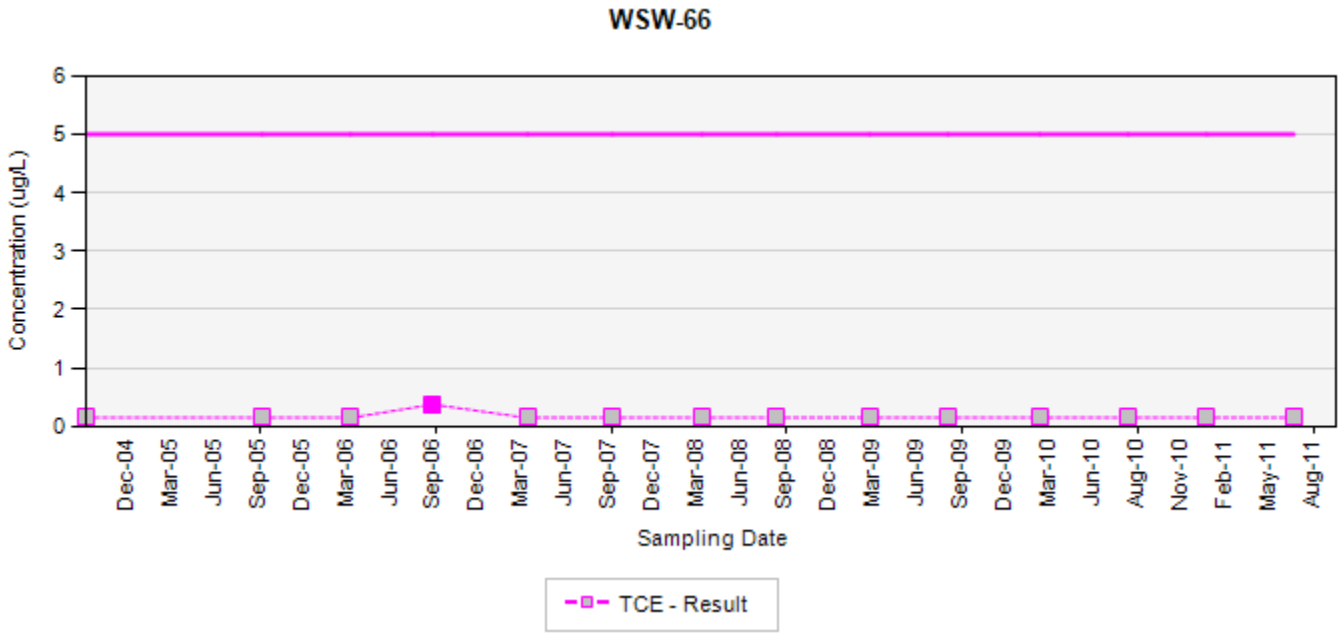

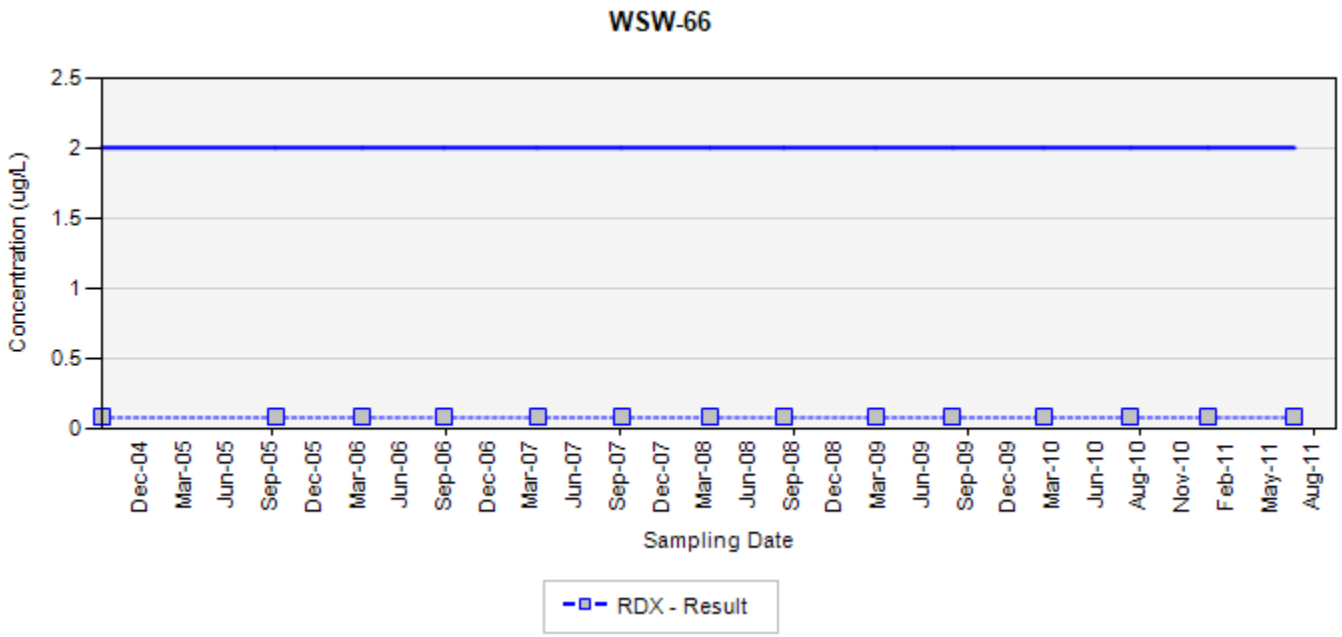

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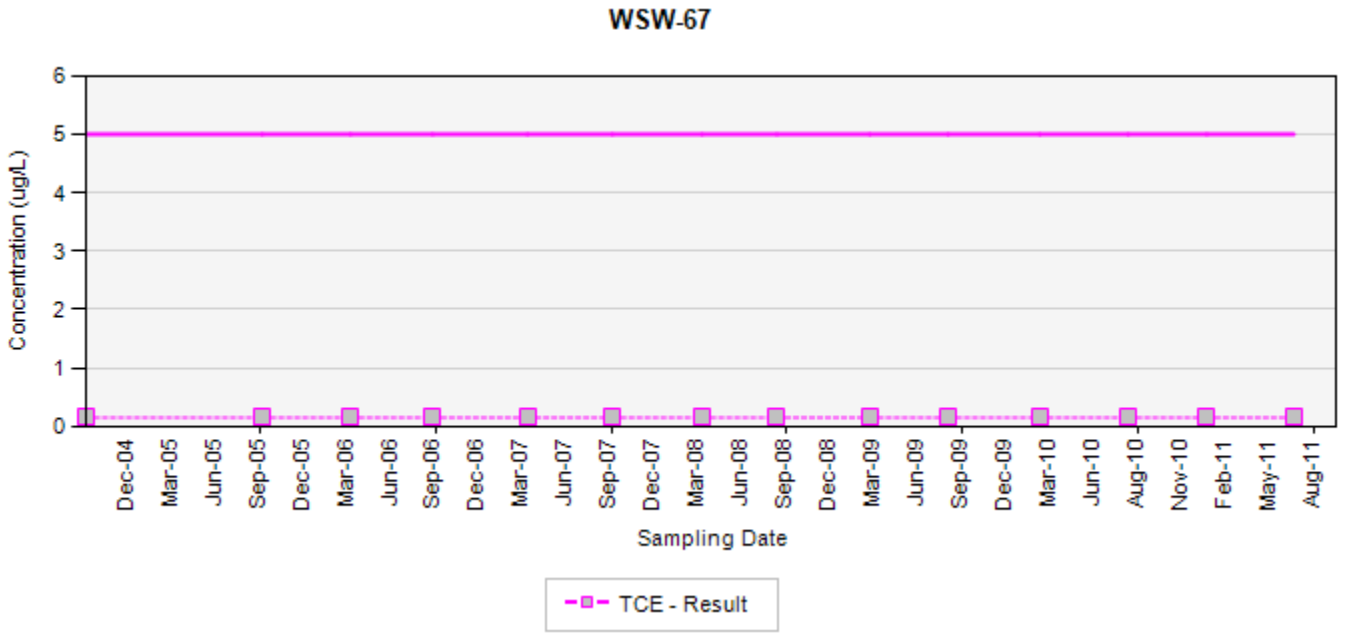

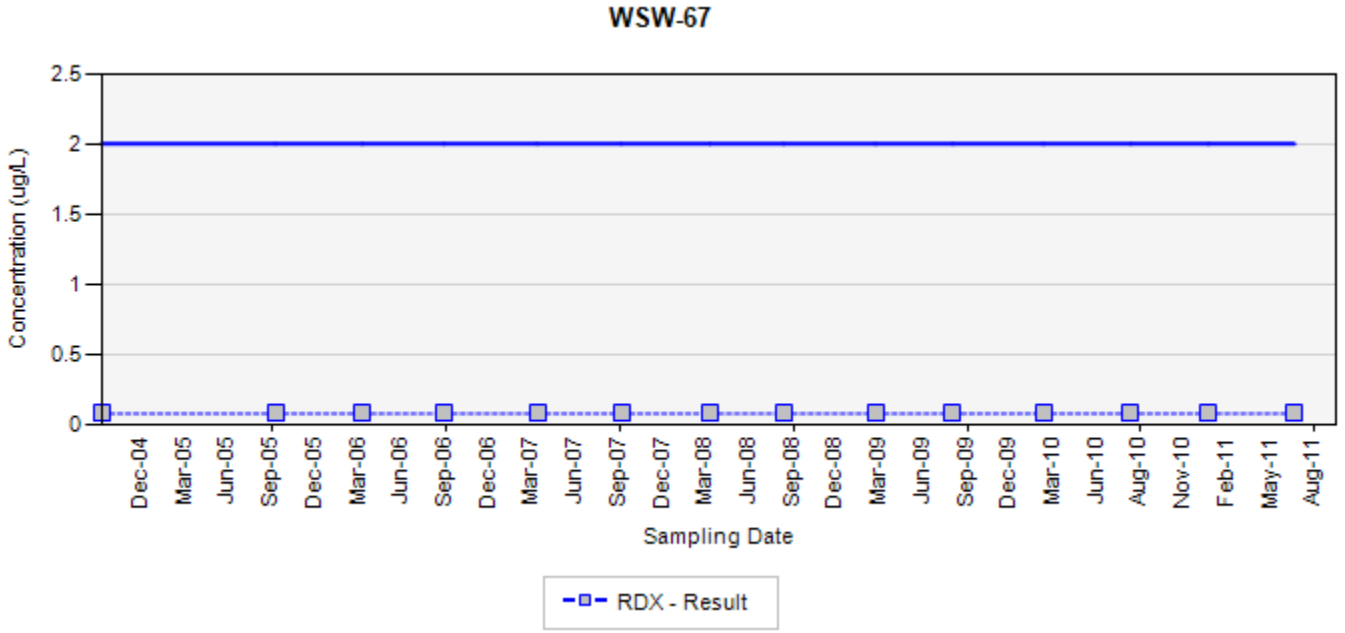

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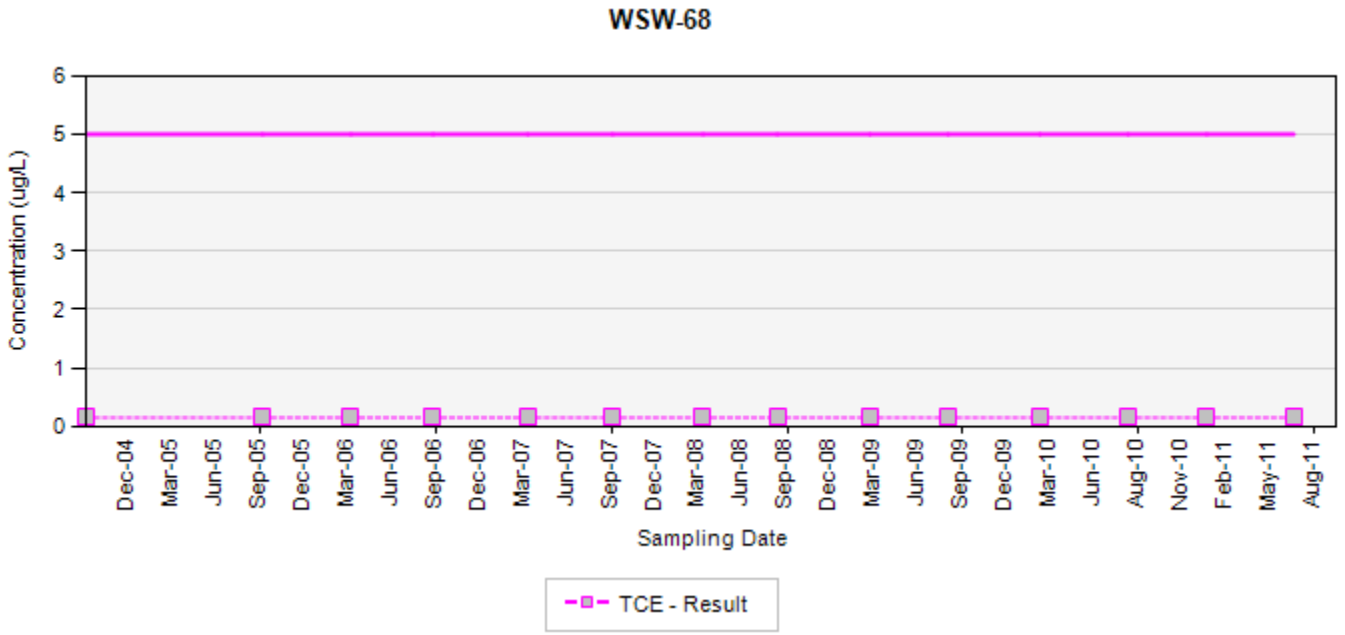

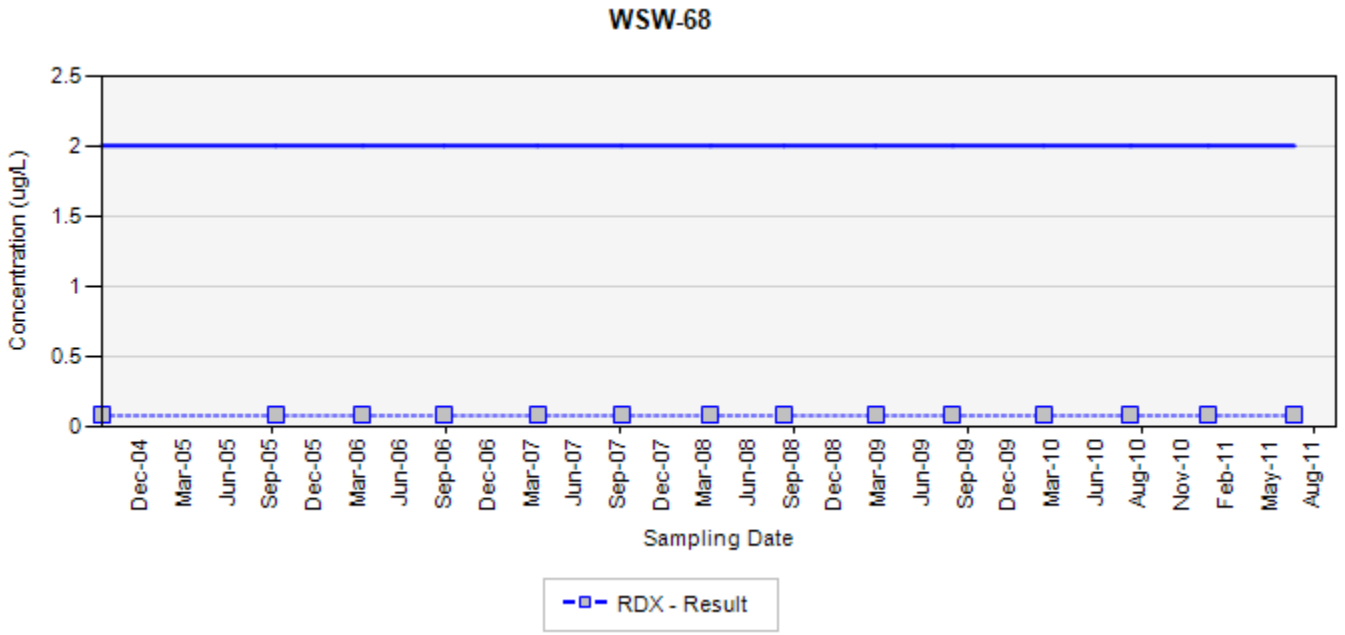

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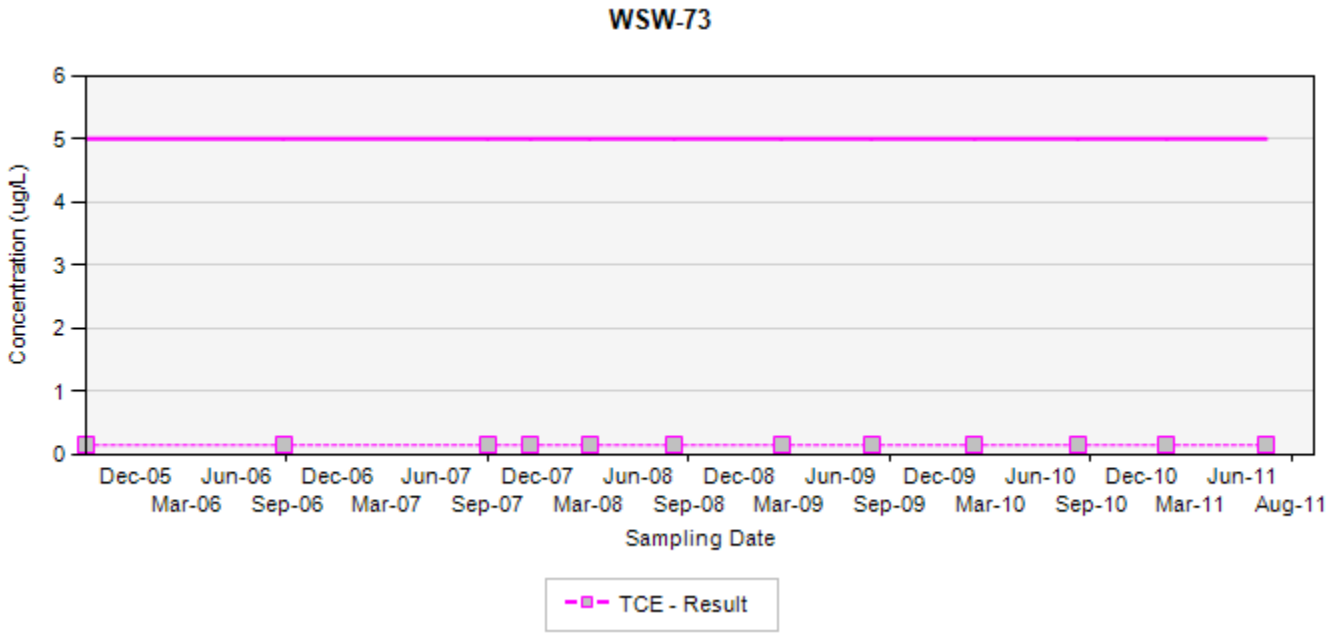

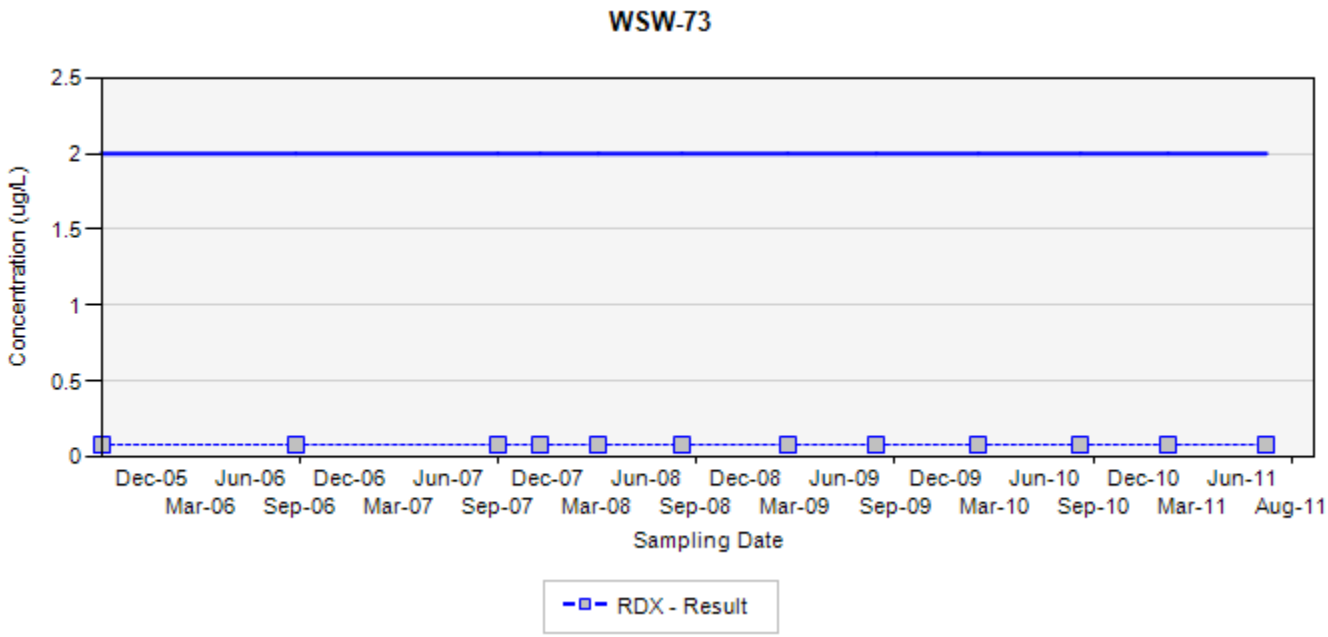

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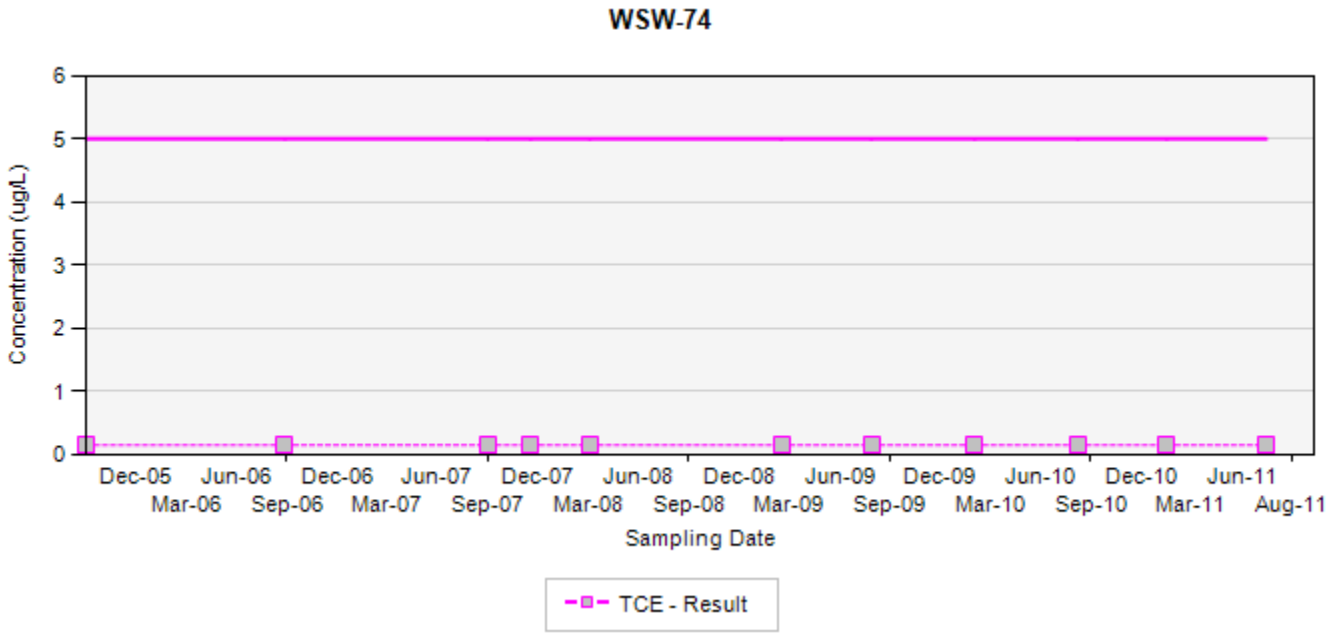

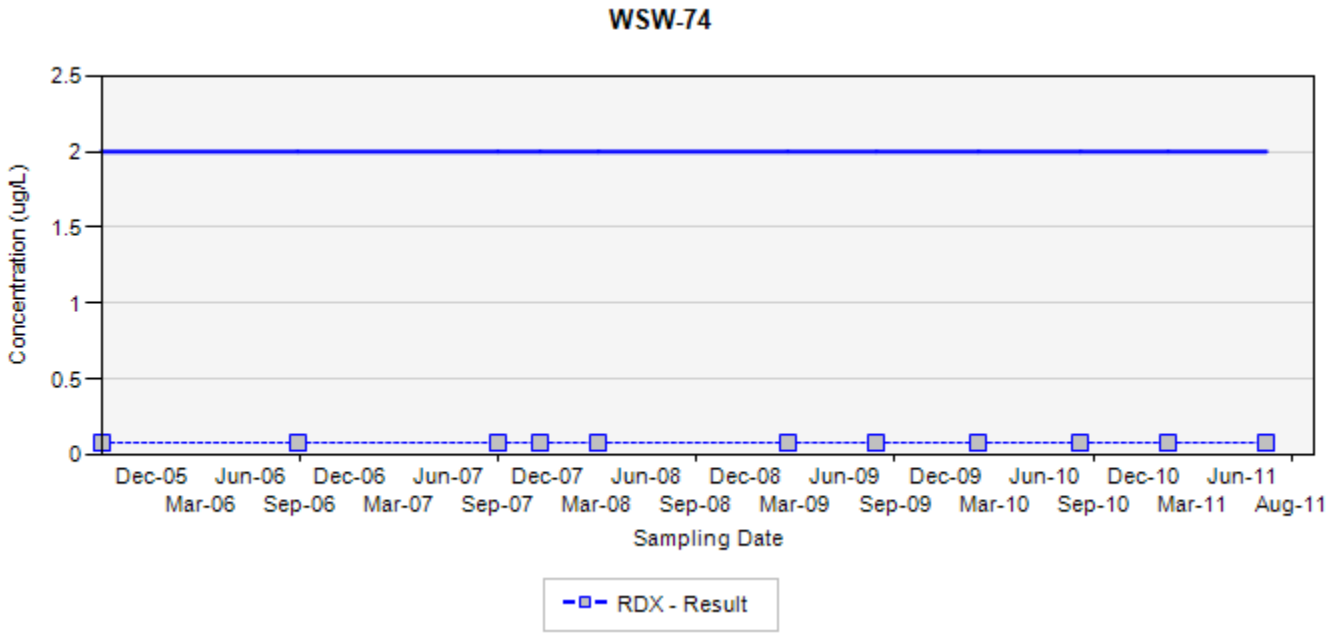

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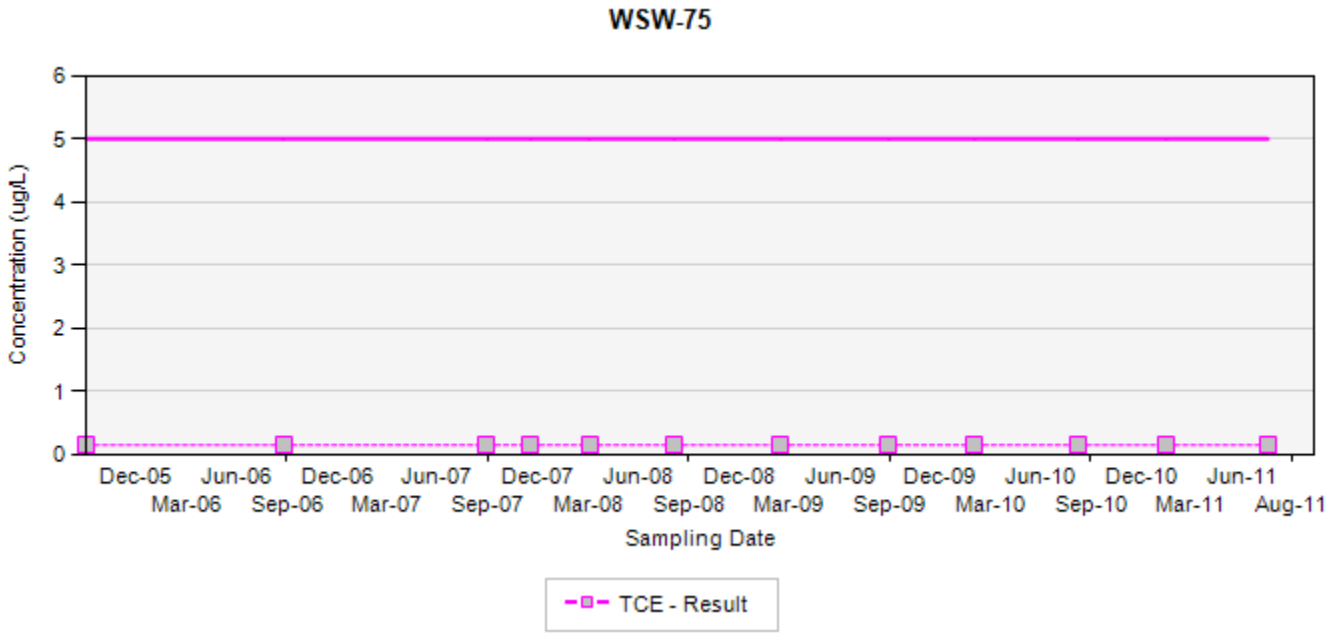

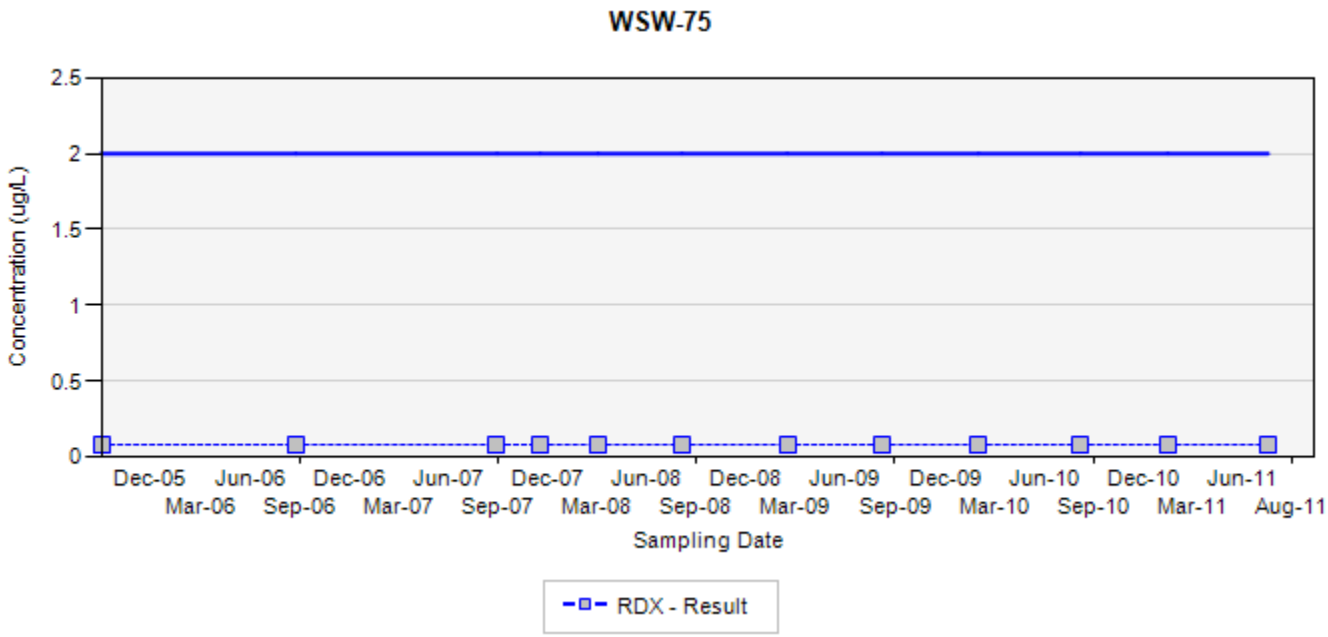

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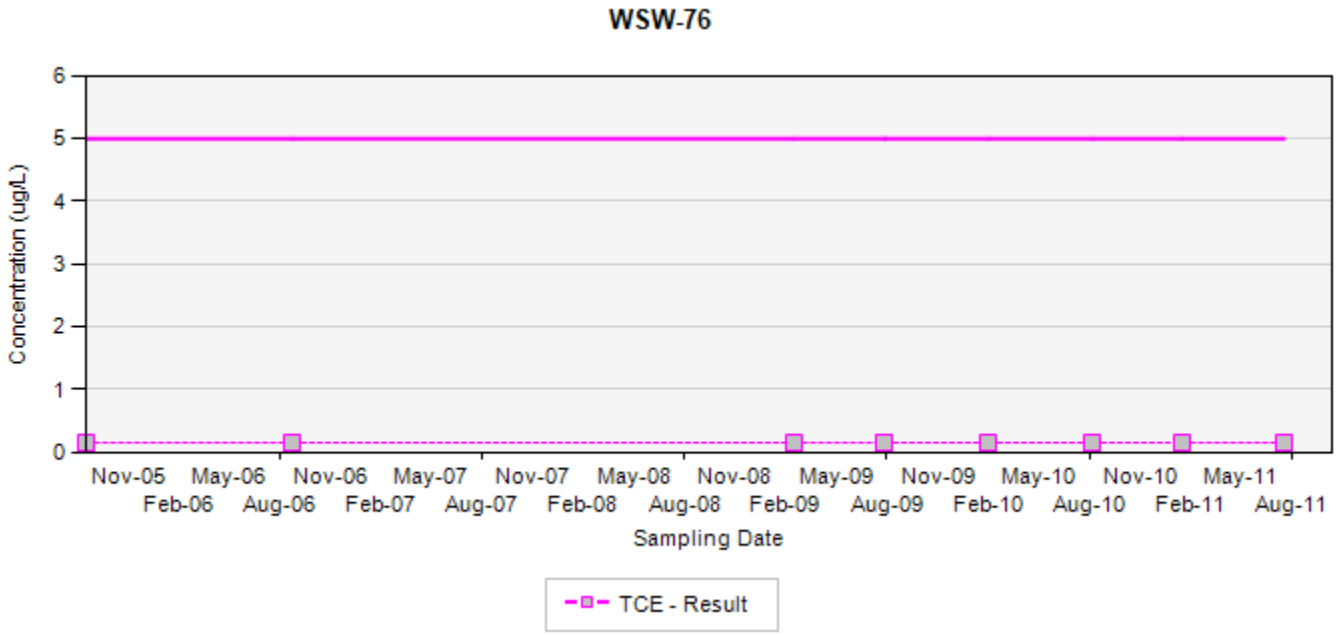

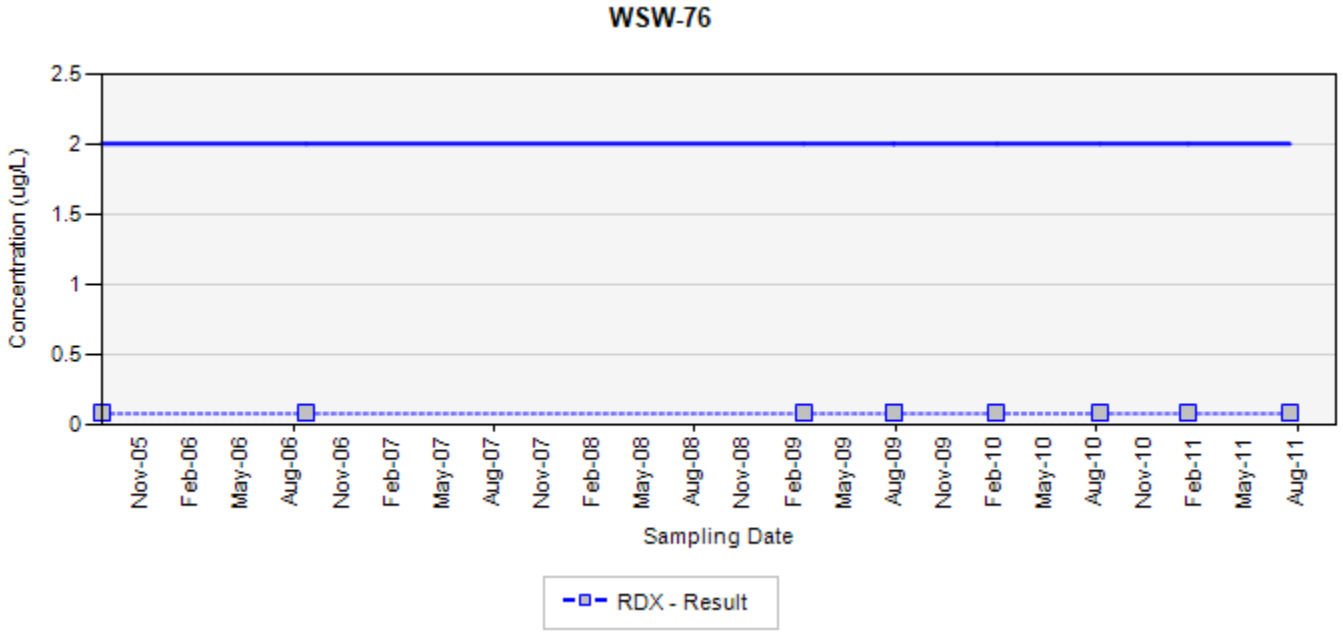

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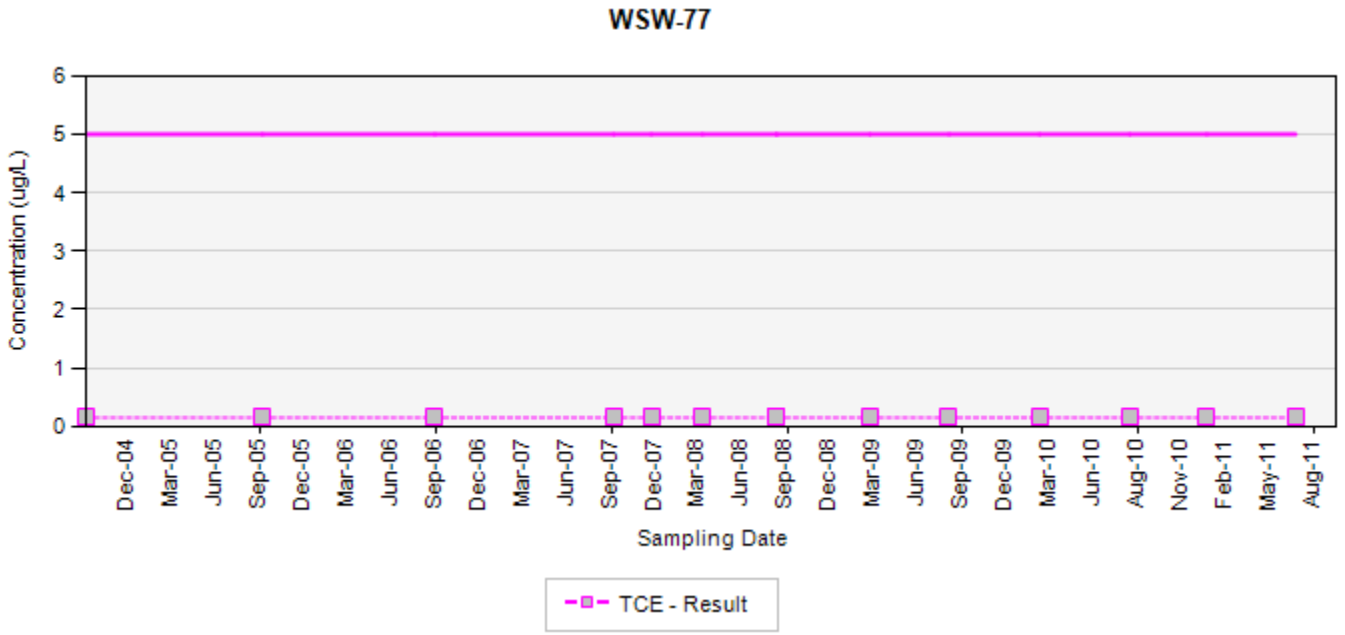

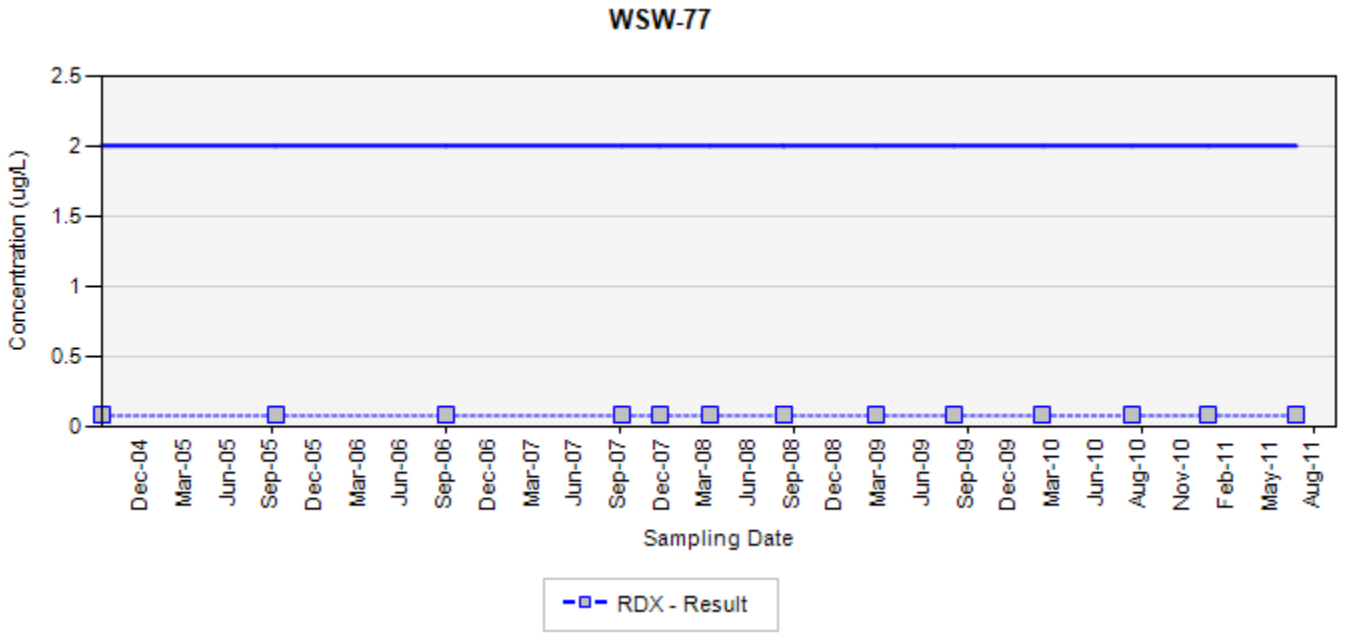

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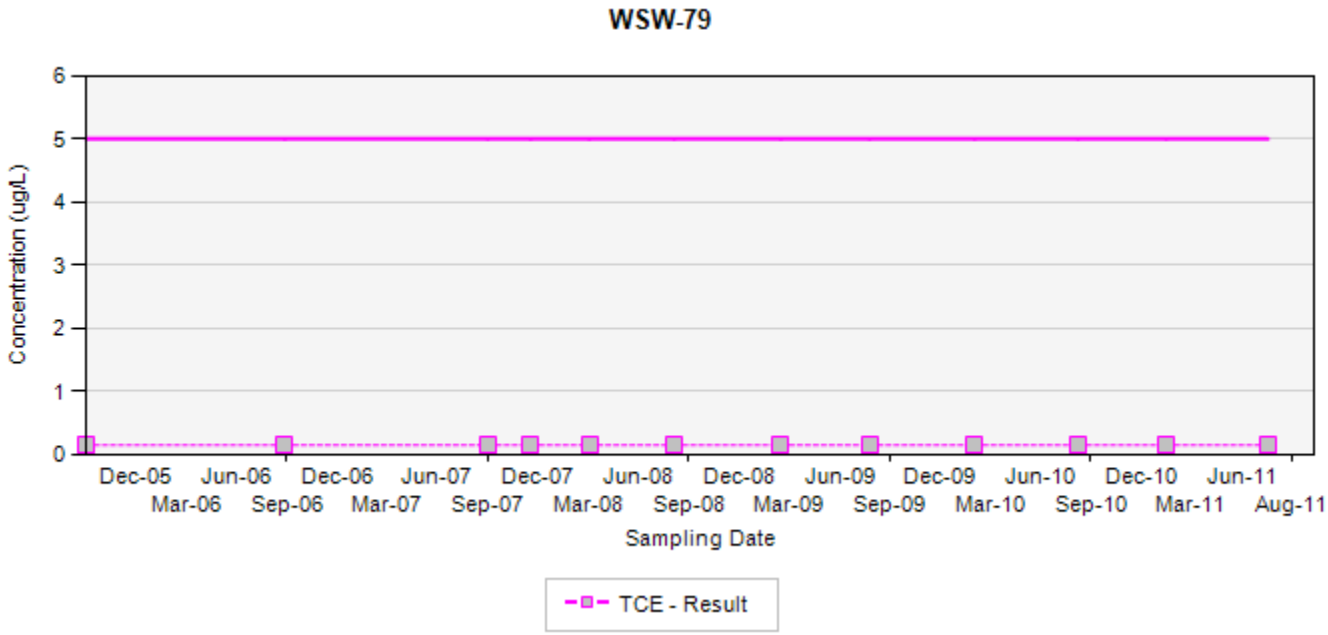

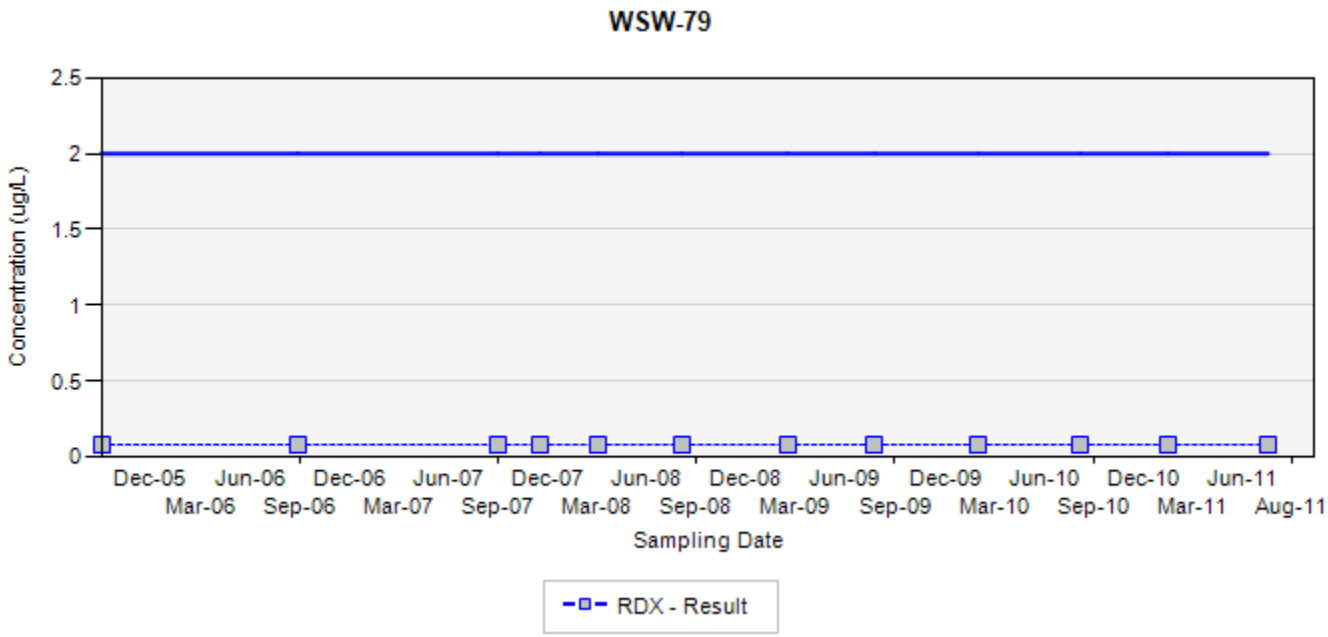

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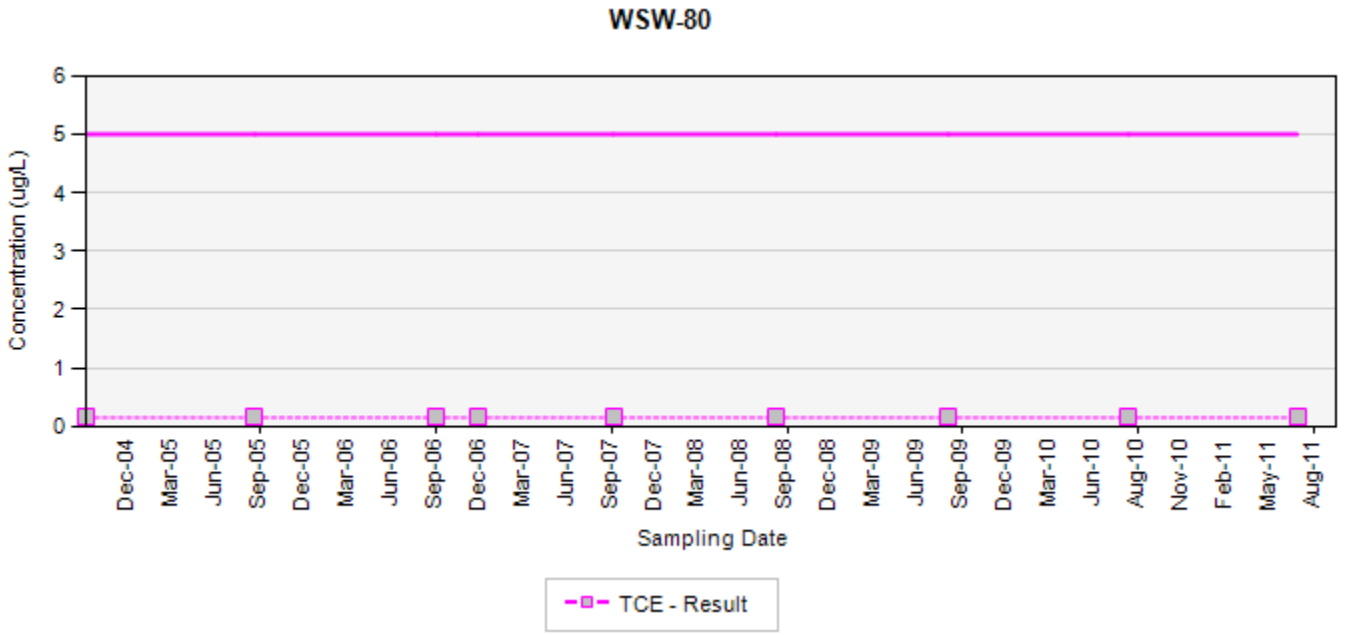

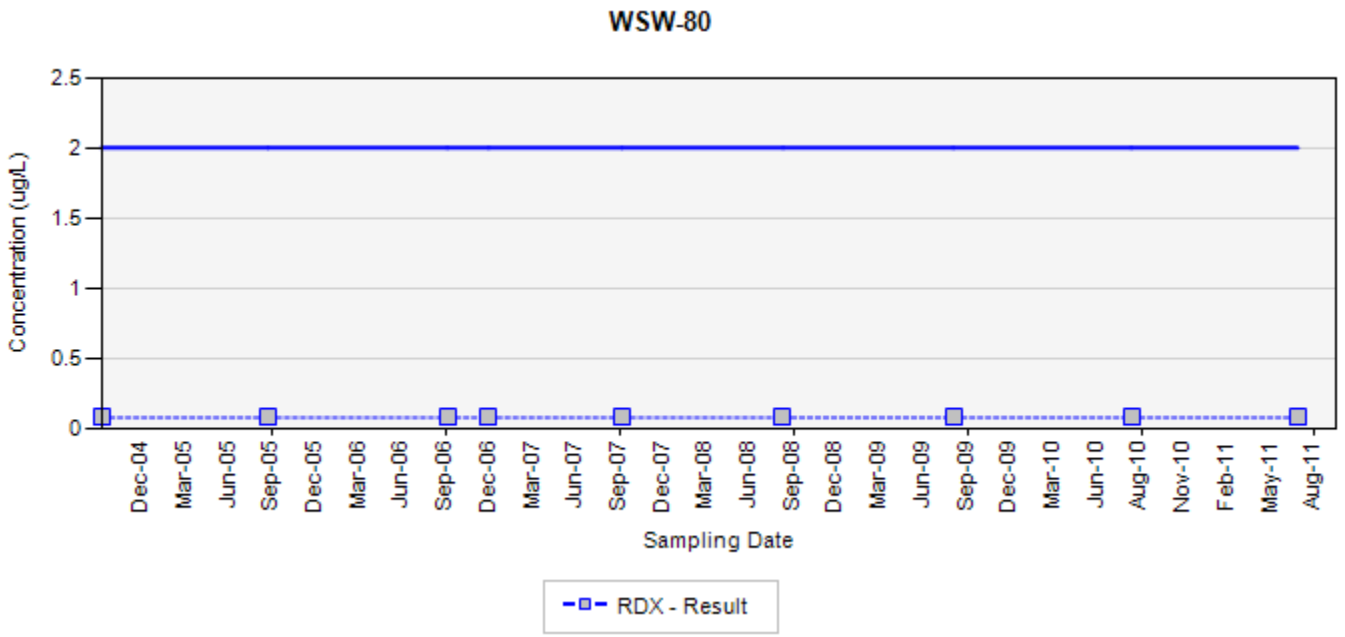

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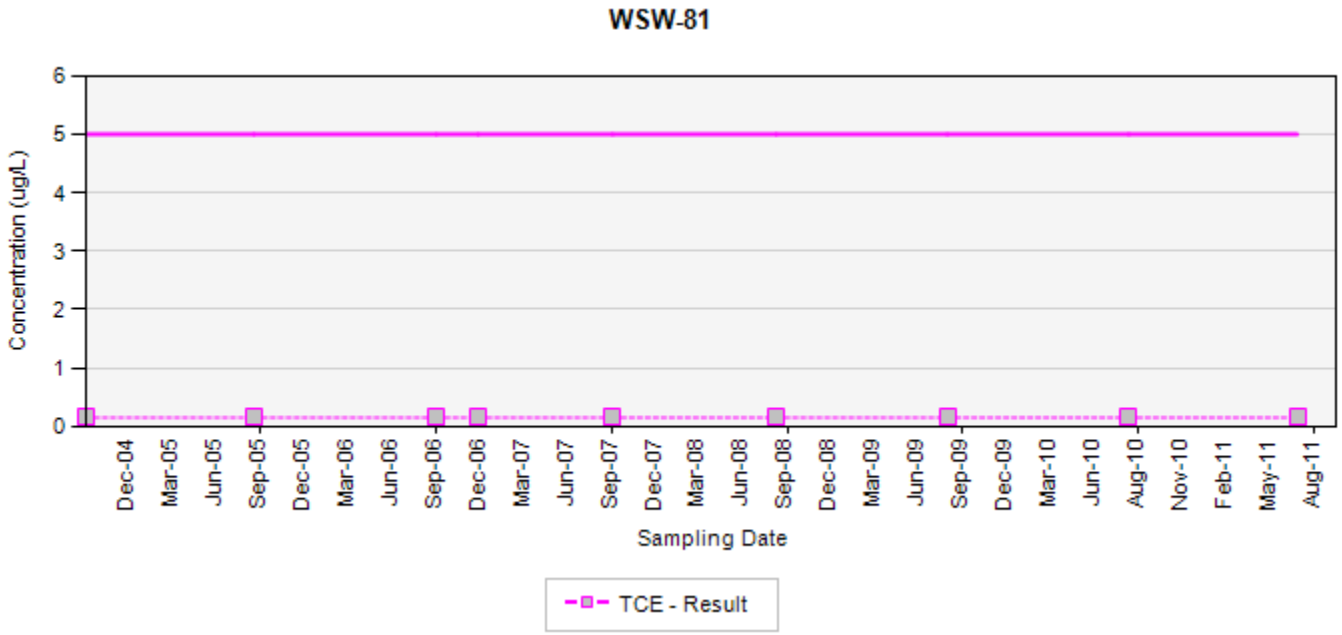

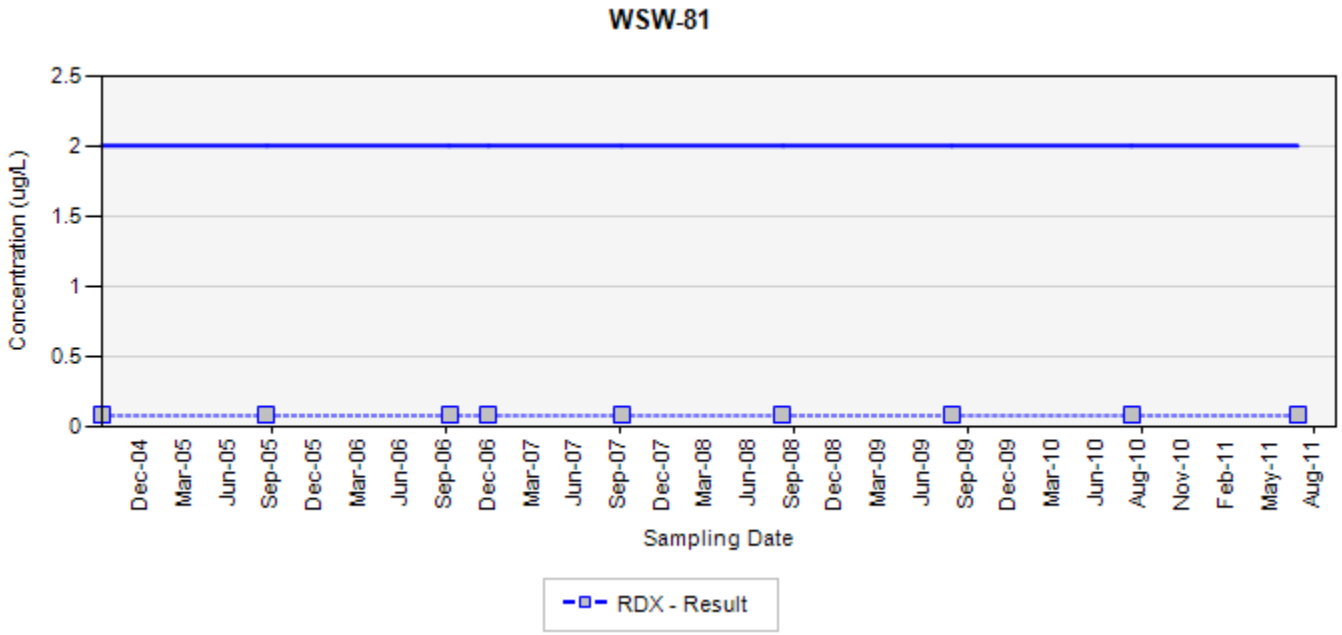

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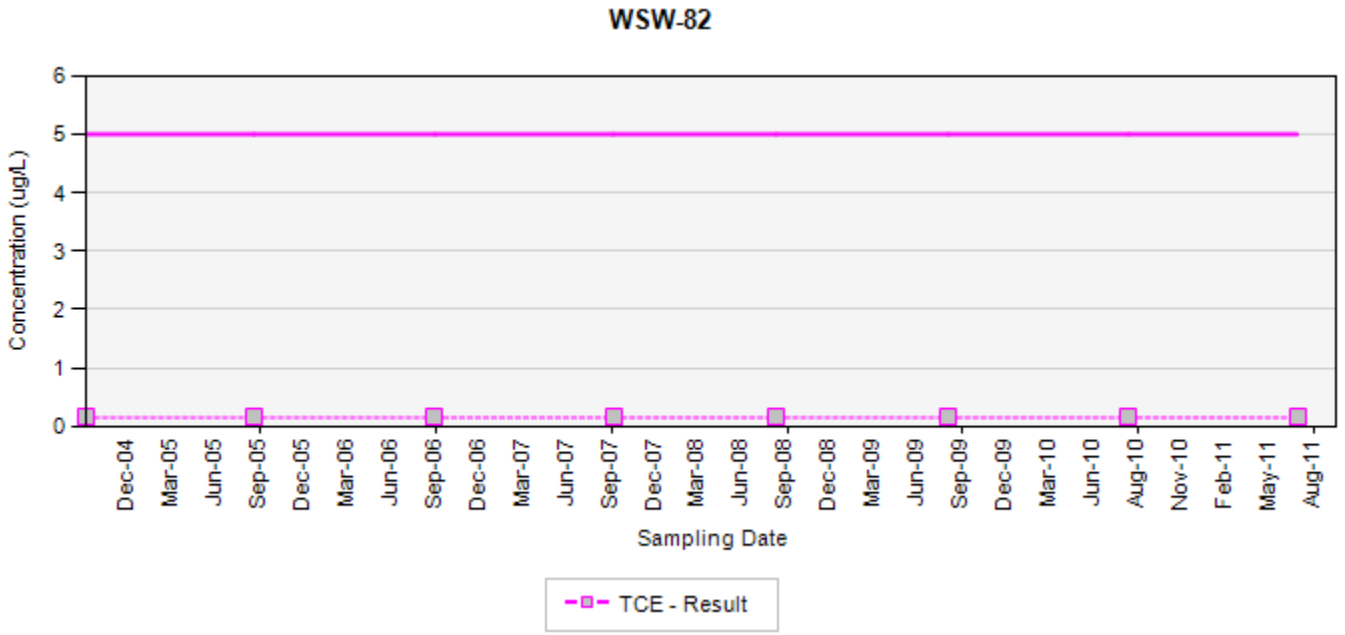

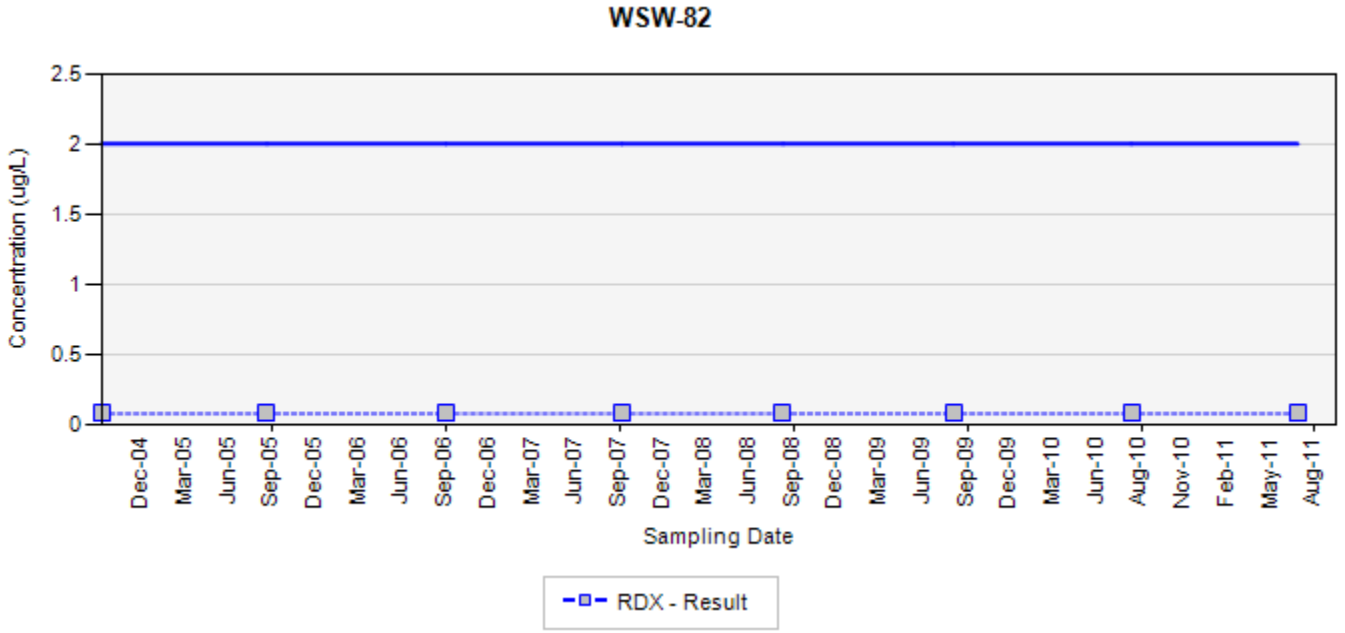

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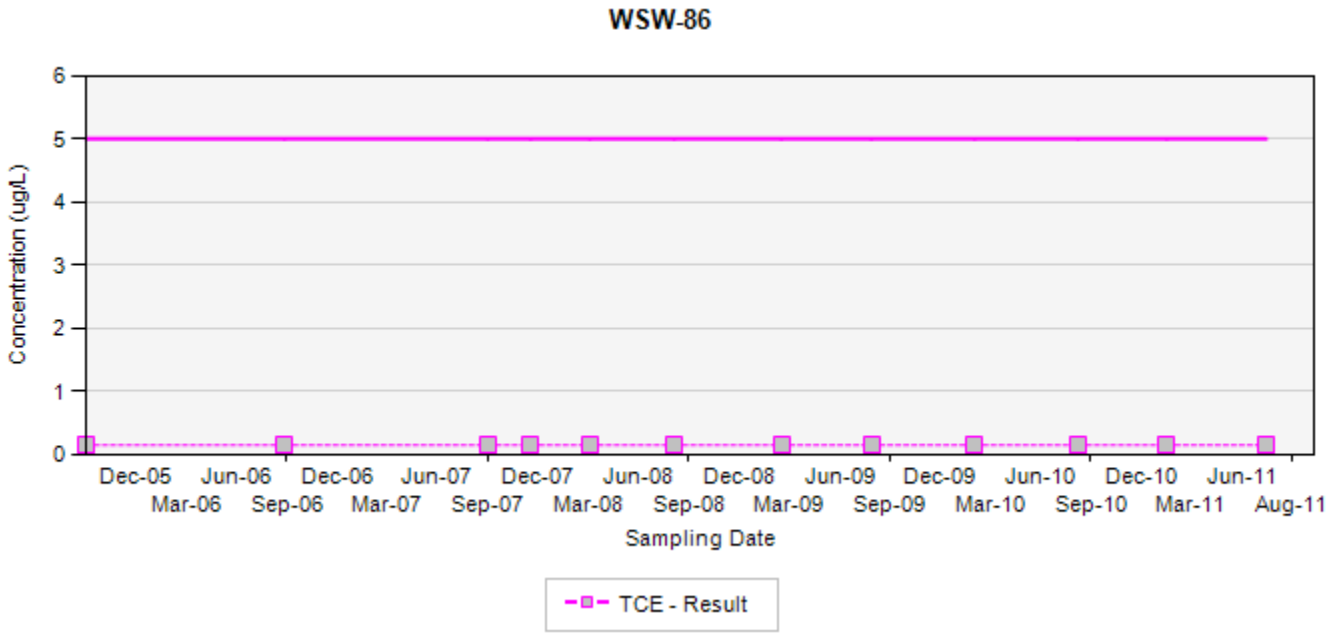

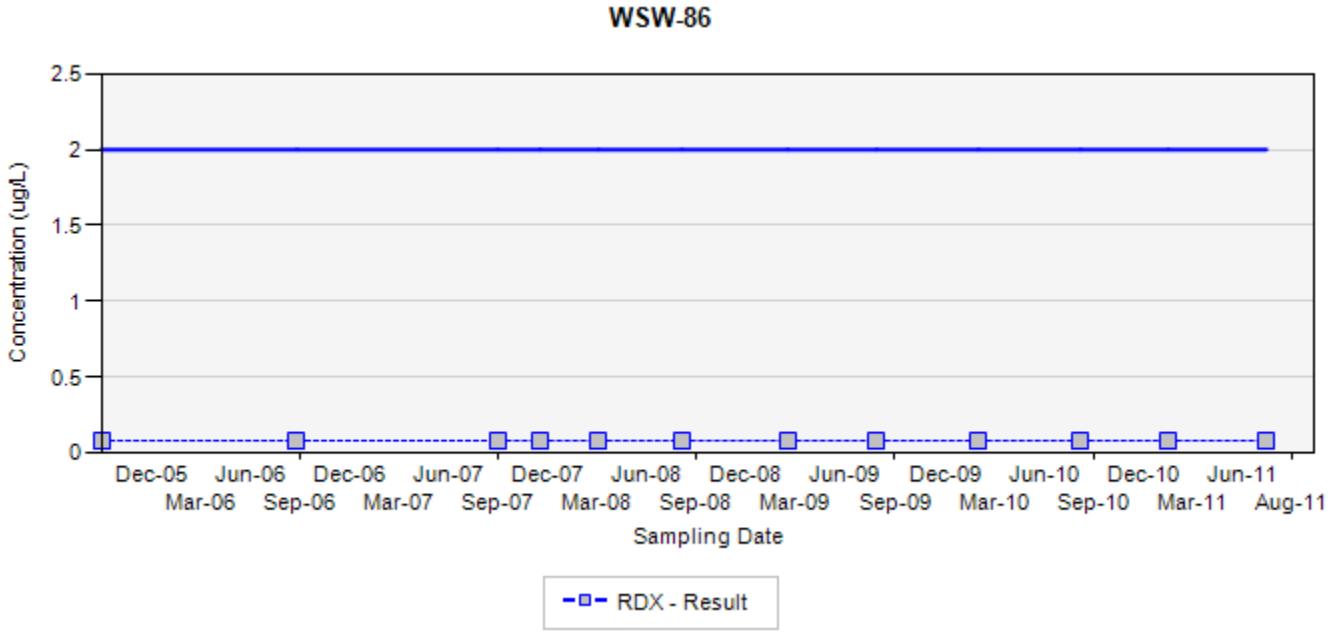

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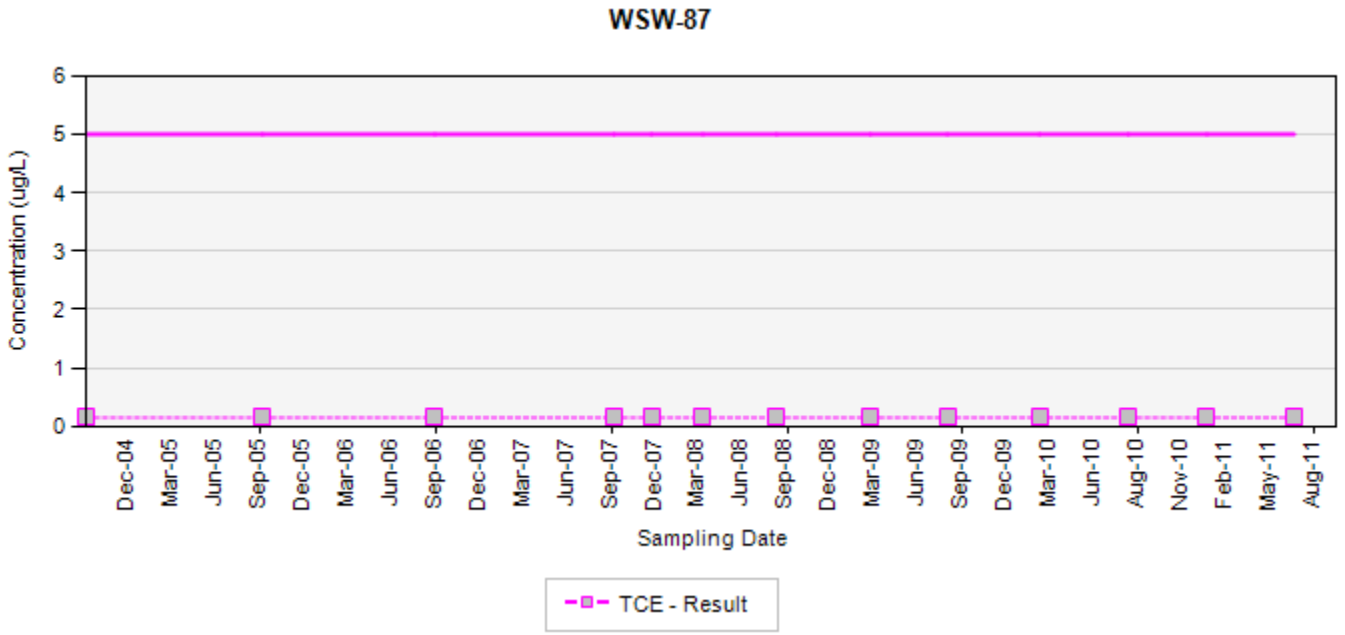
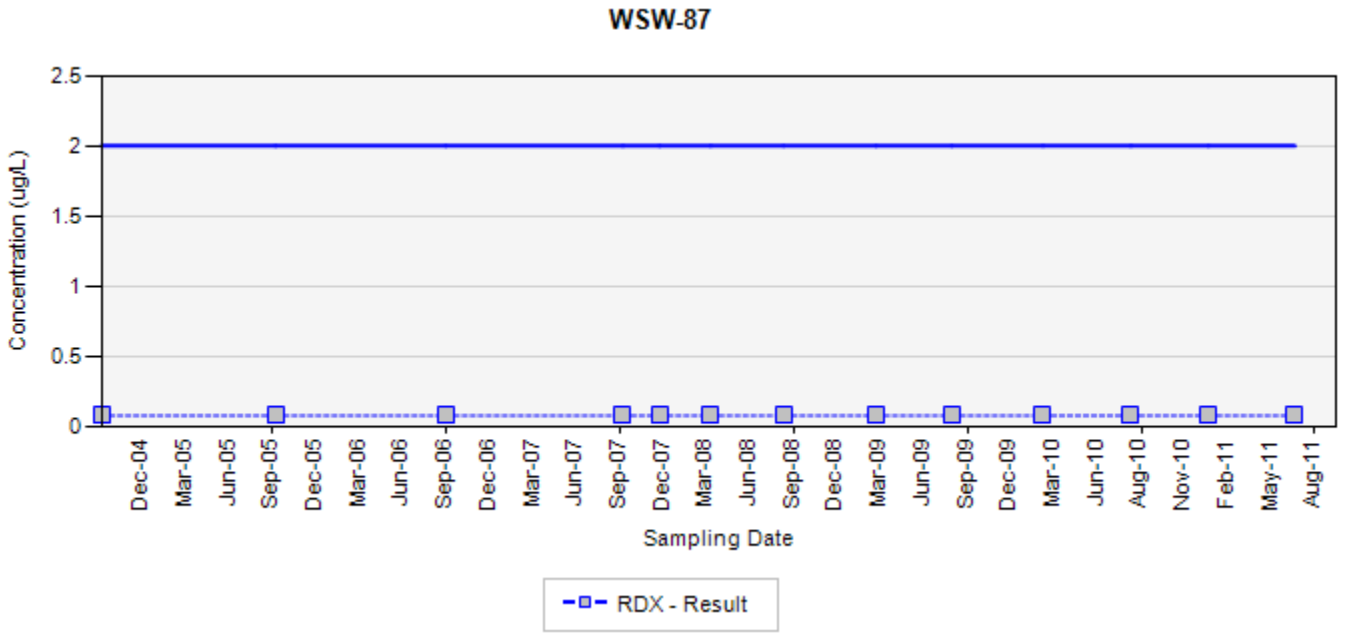
Appendix B
Concentration Trend Charts for Select Water Supply Wells
Former Nebraska Ordnance Plant, Mead, Nebraska





TCE - trichloroethene
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Final Target Groundwater Cleanup Goals for TCE is 5 µg/L
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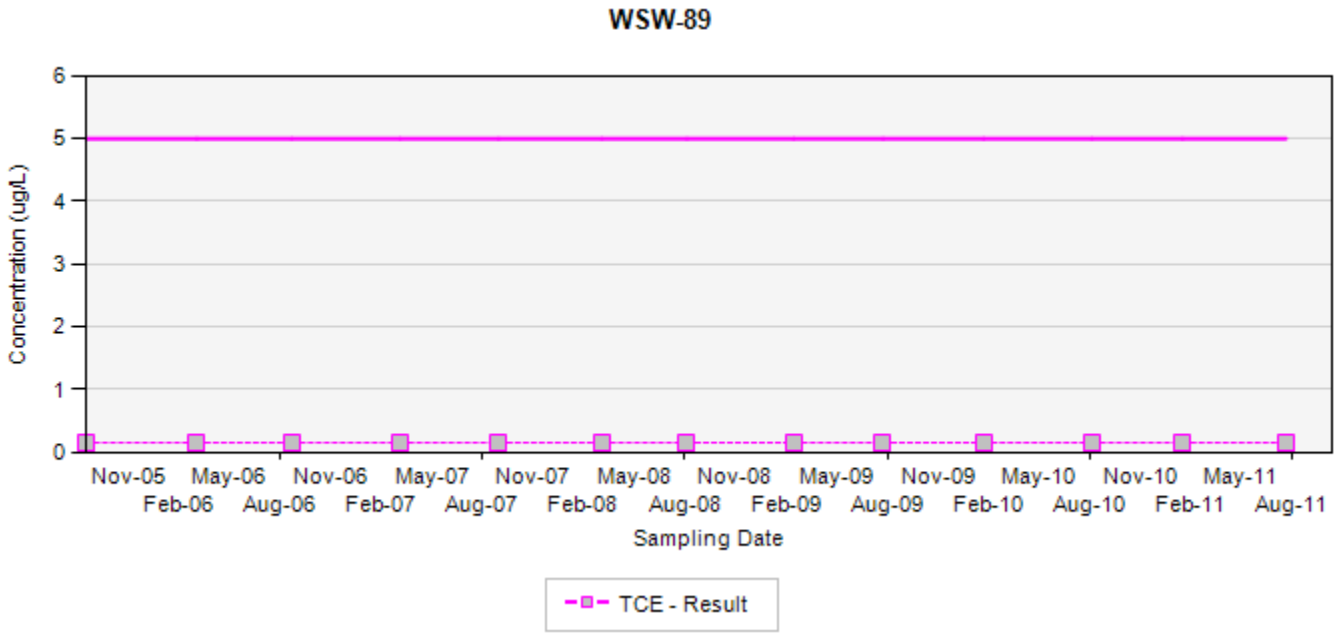
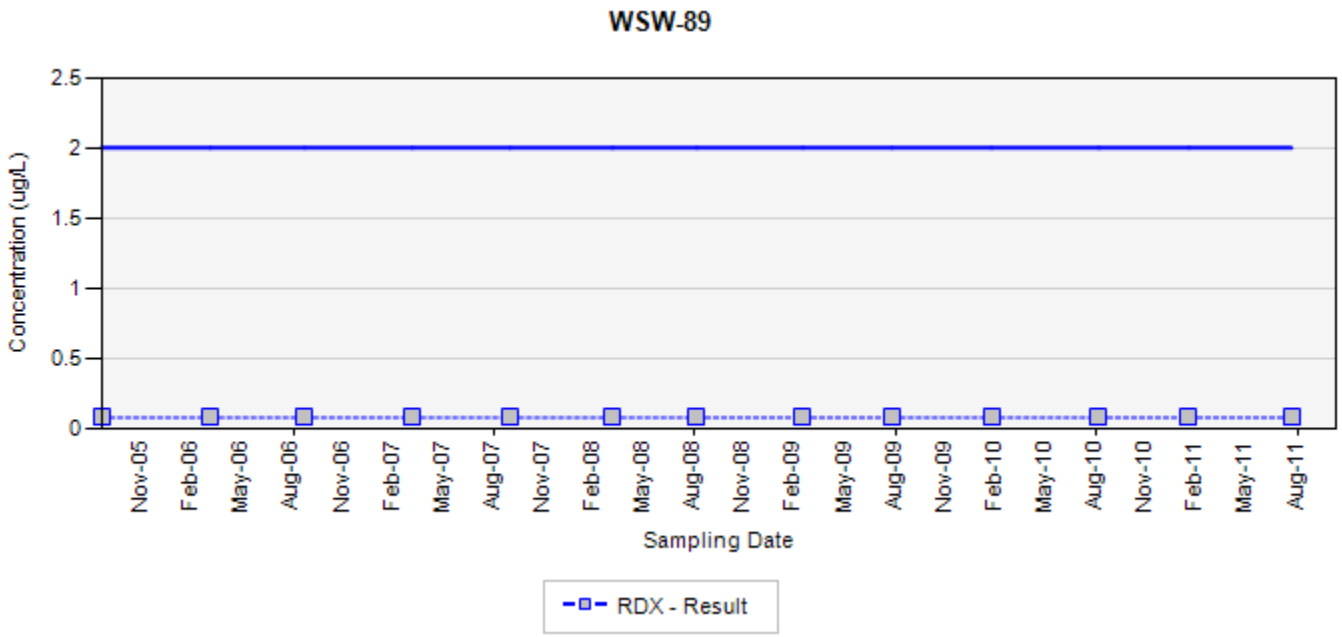
Former Nebraska Ordnance Plant, Mead, Nebraska





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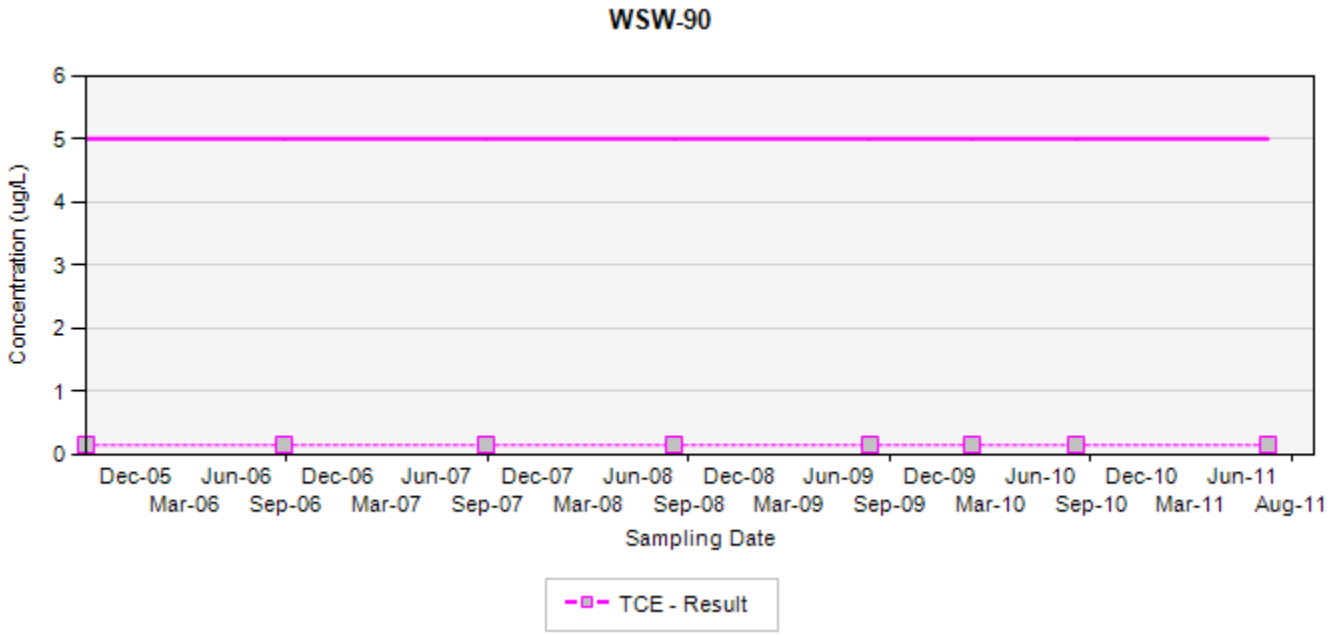

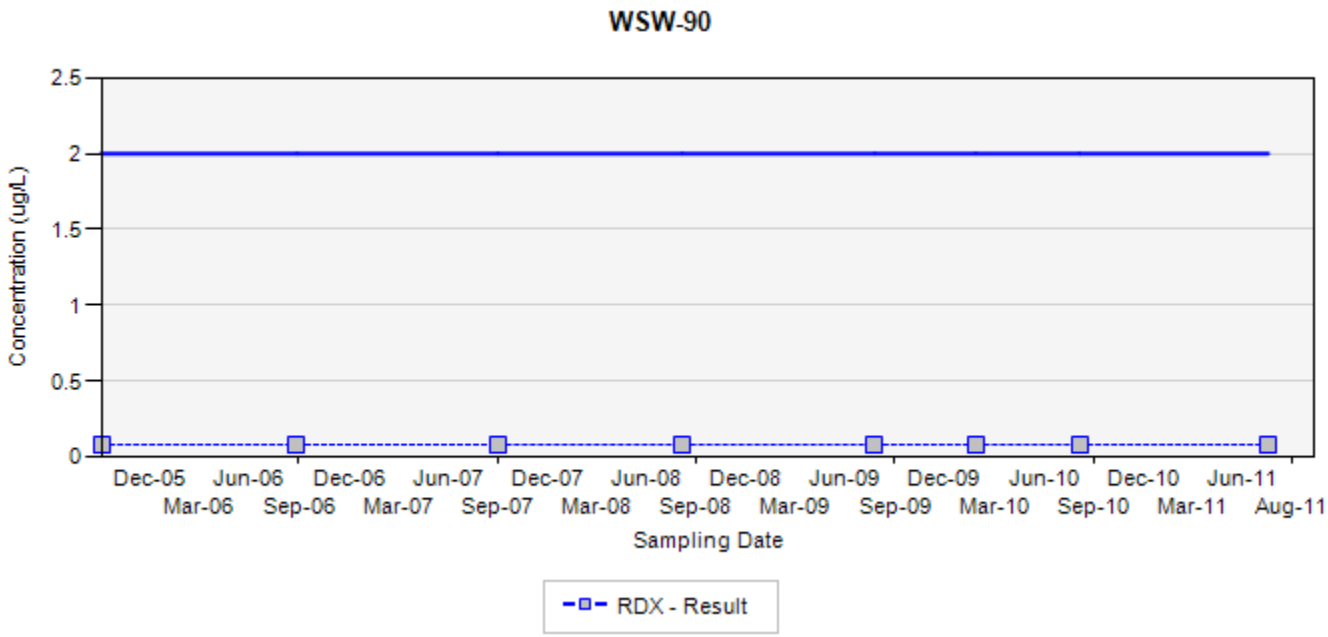

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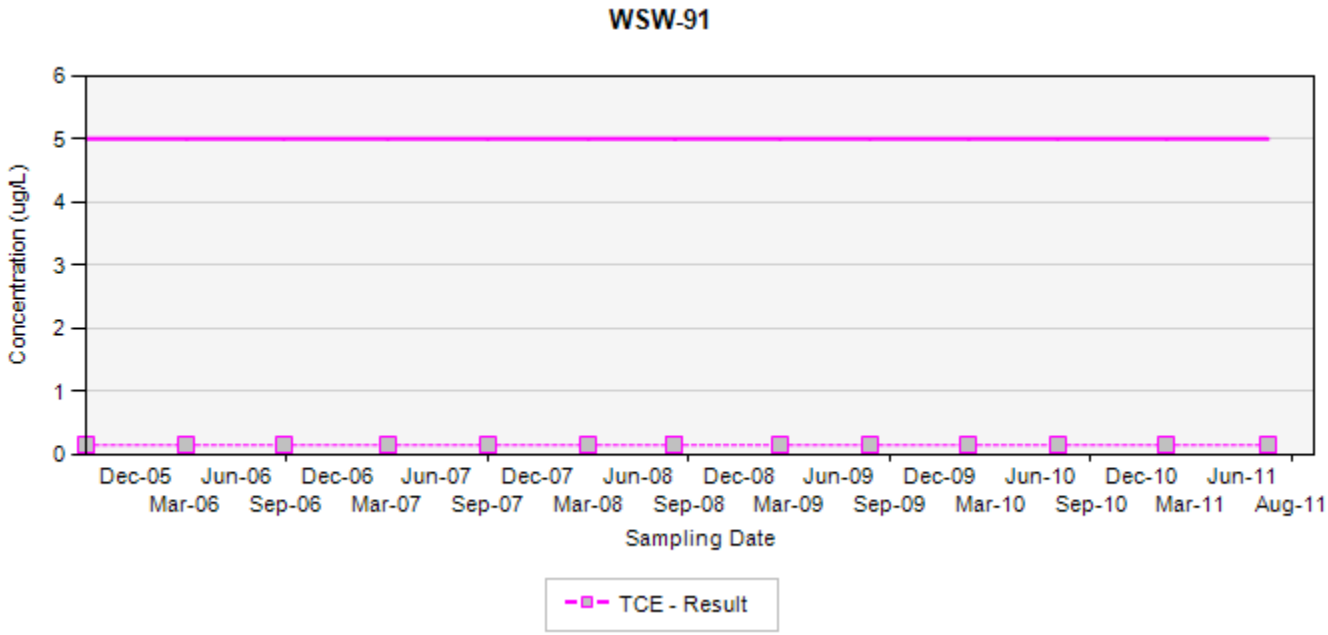

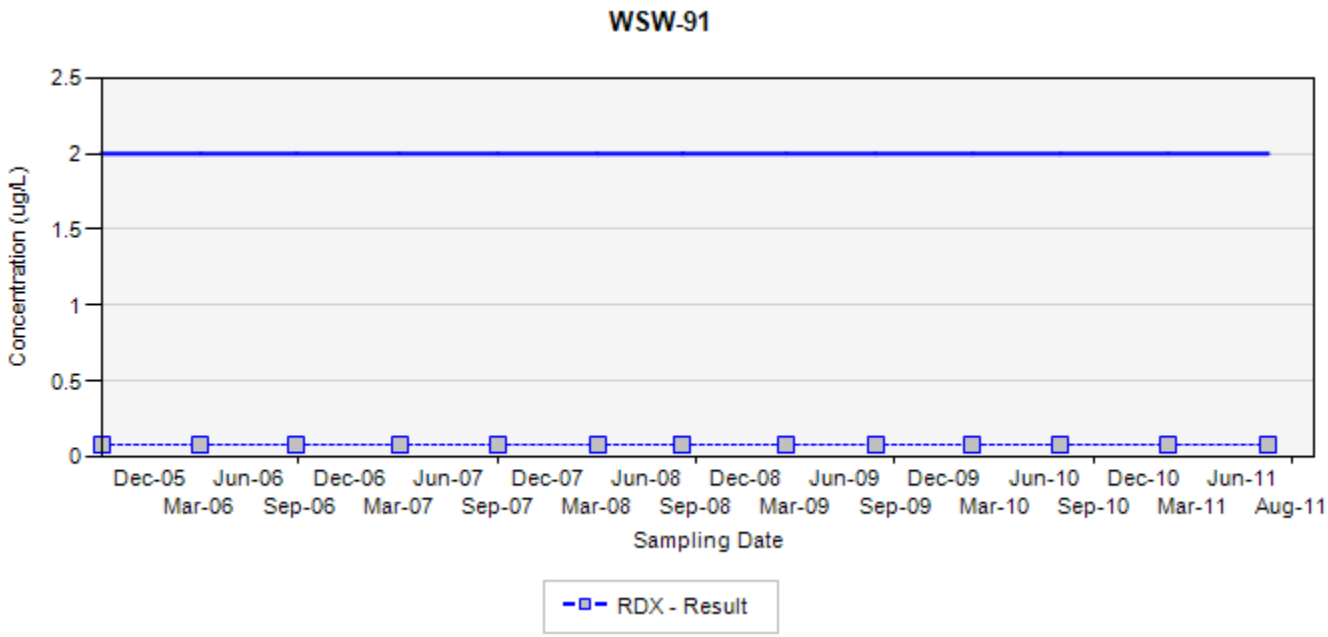

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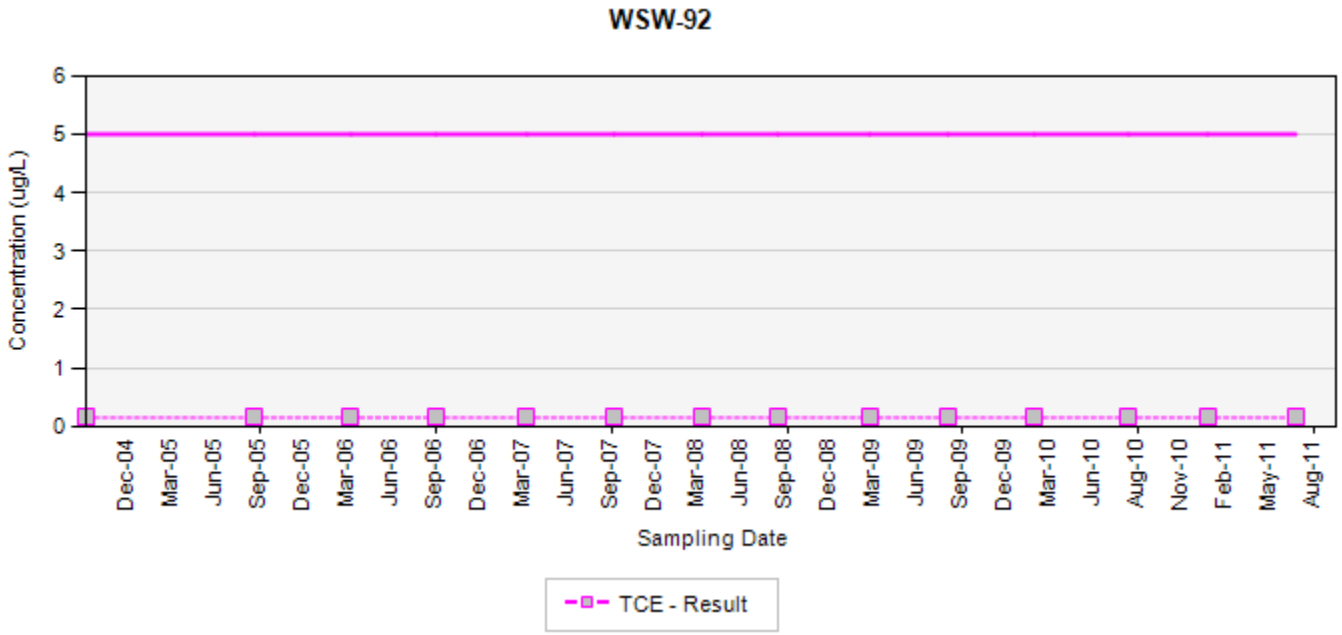

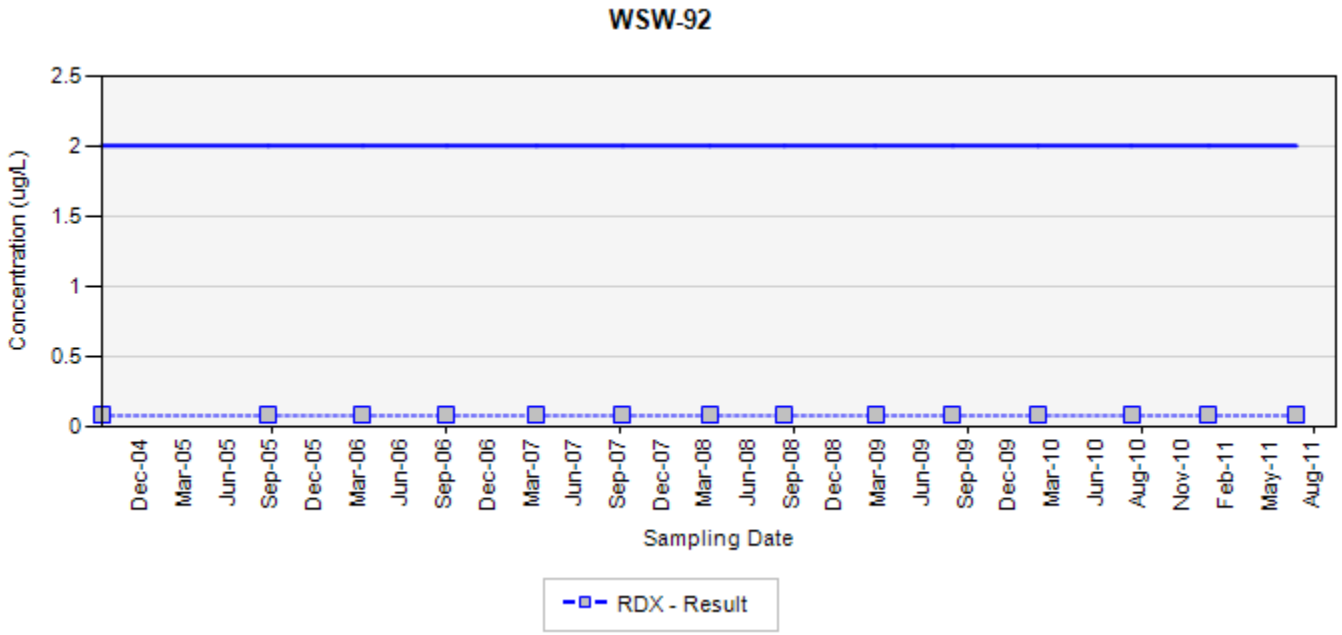

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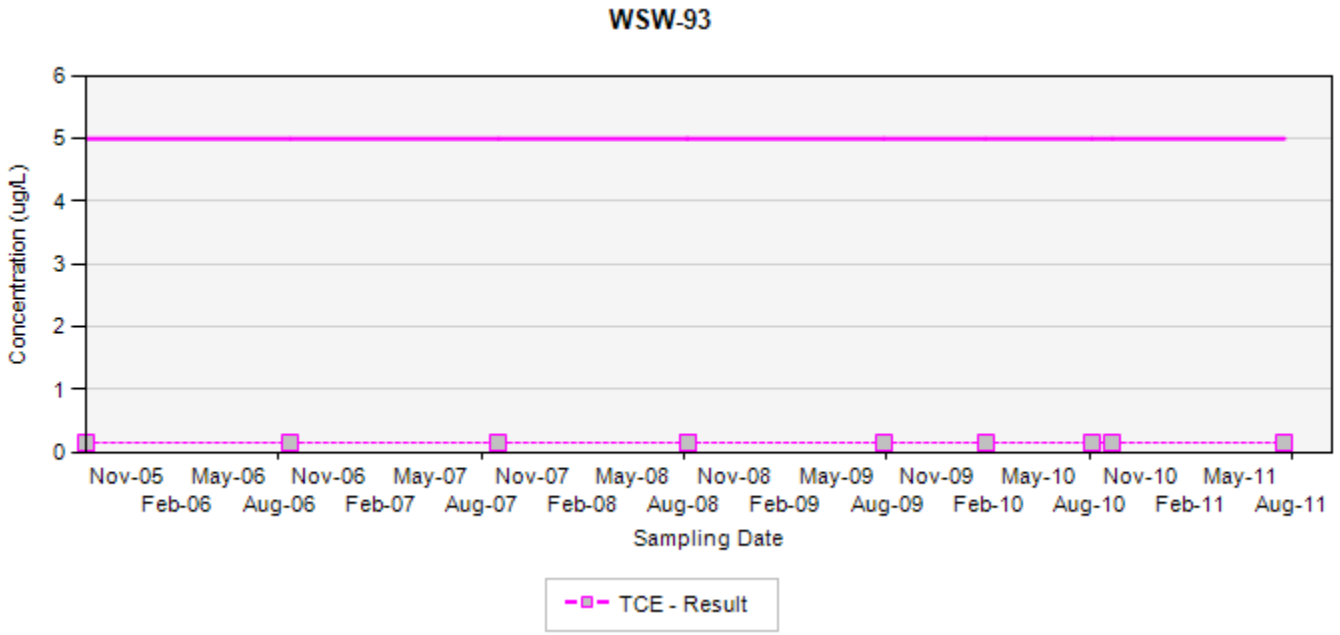

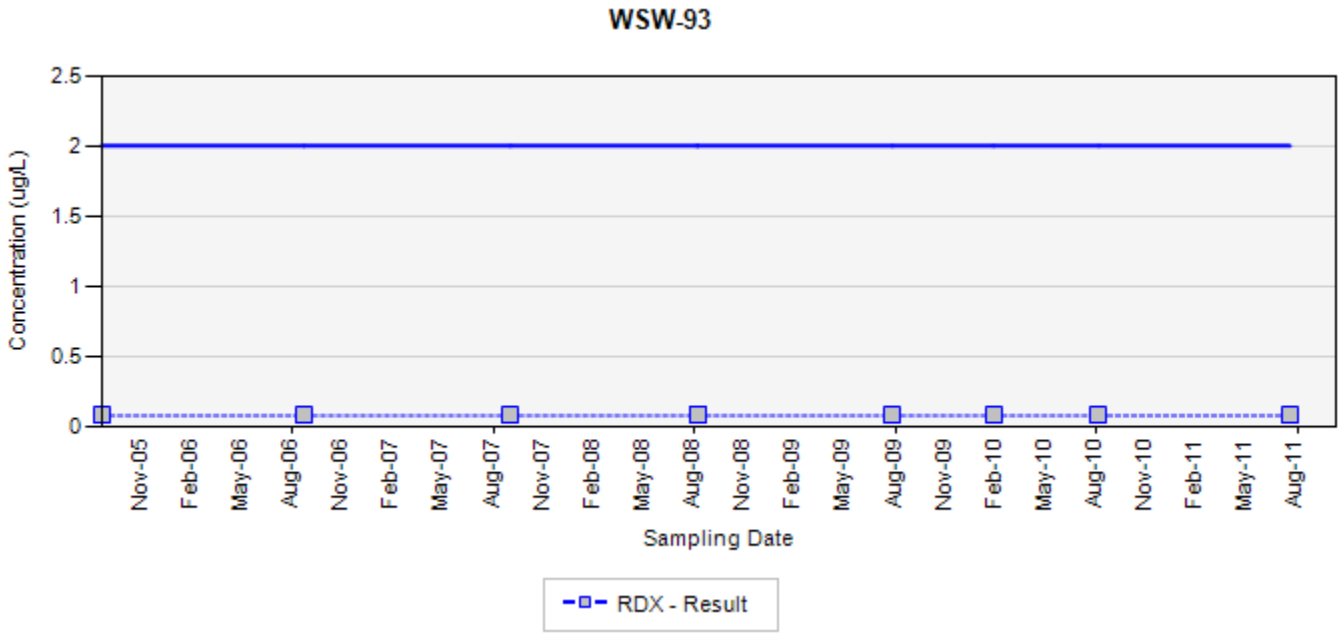

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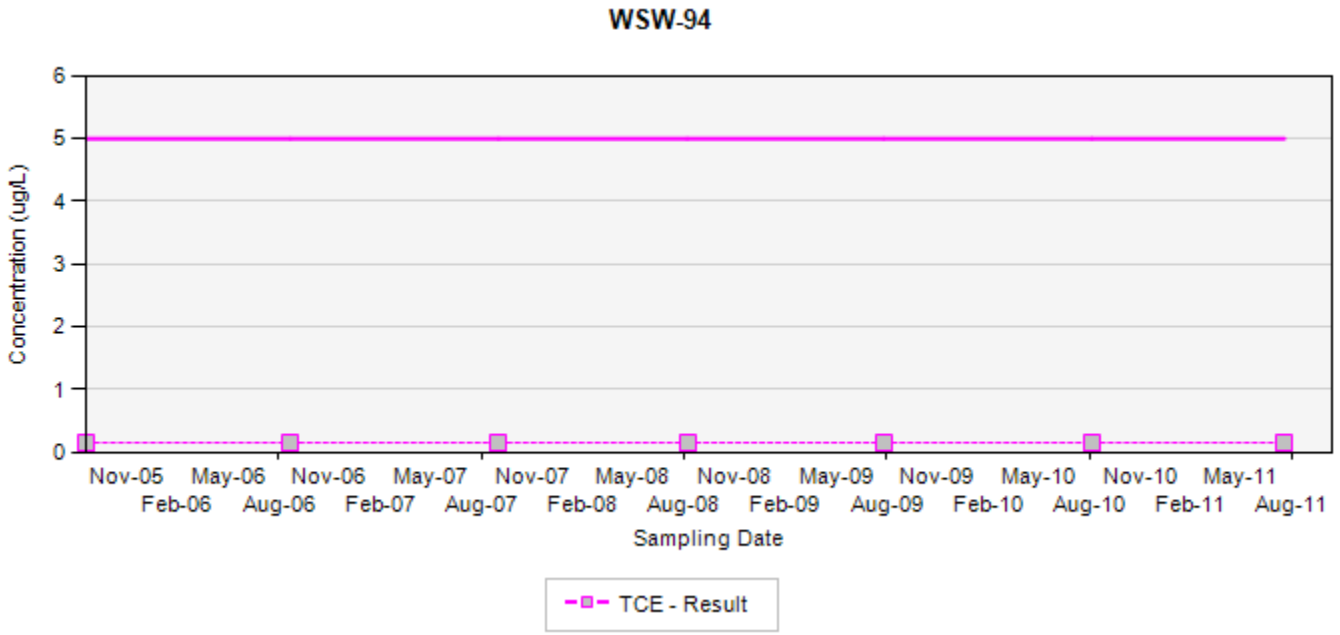

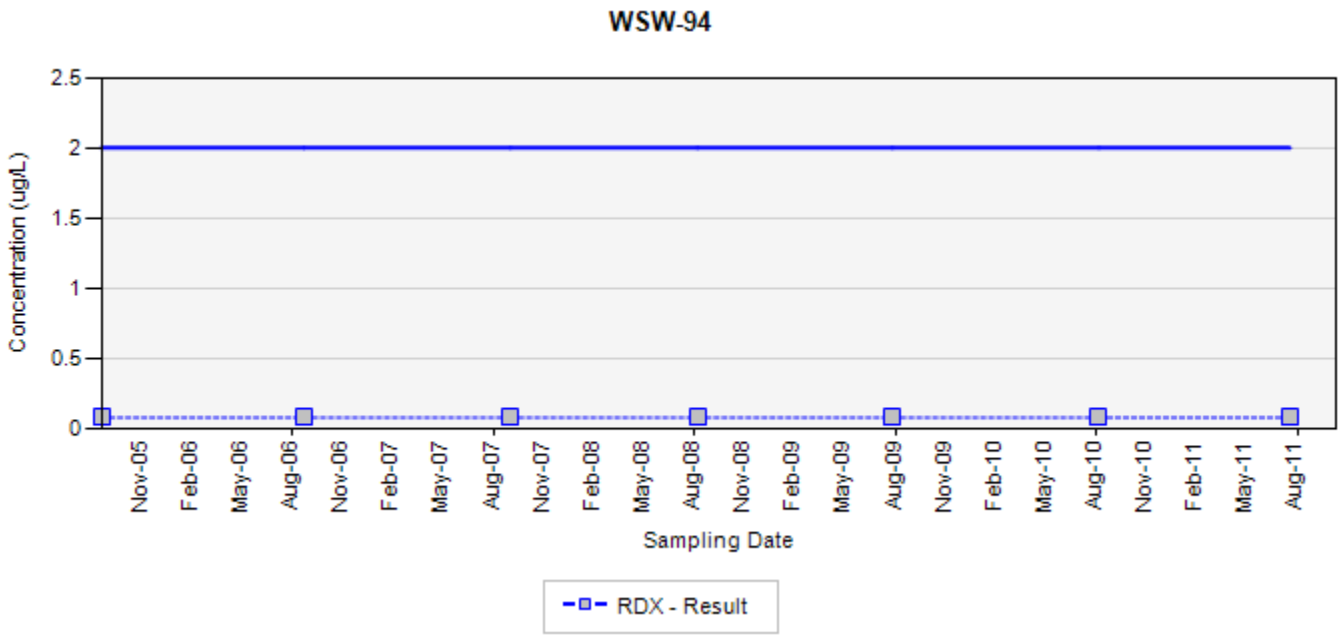

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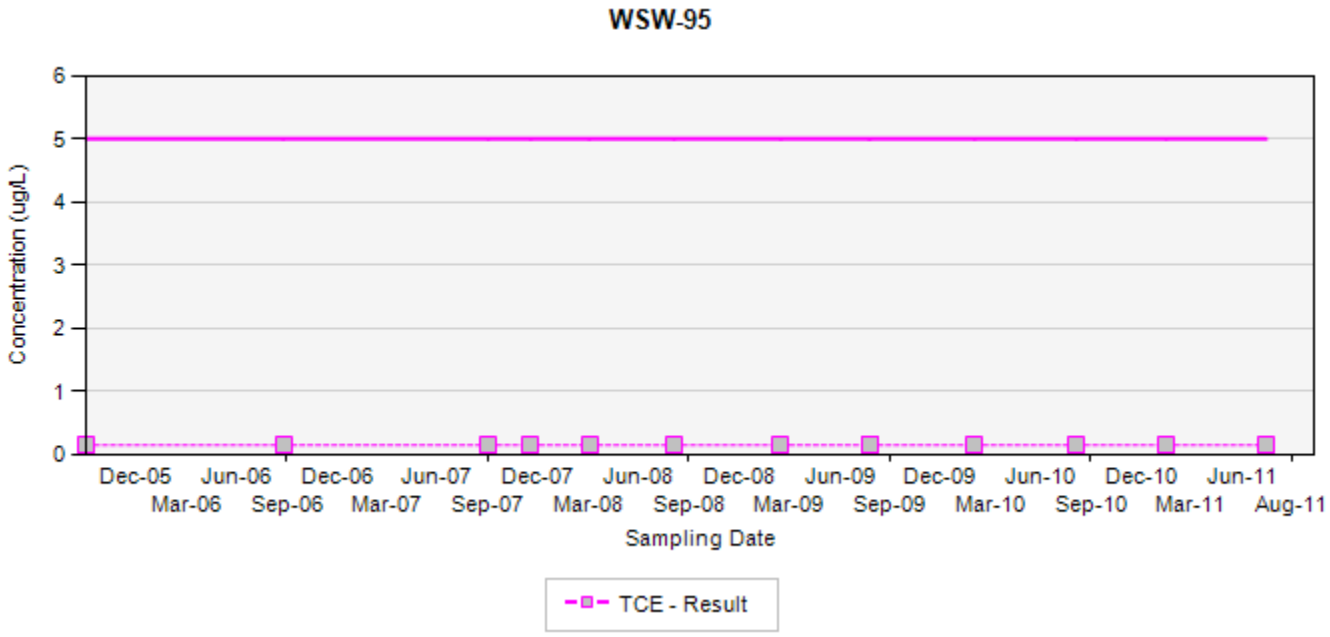

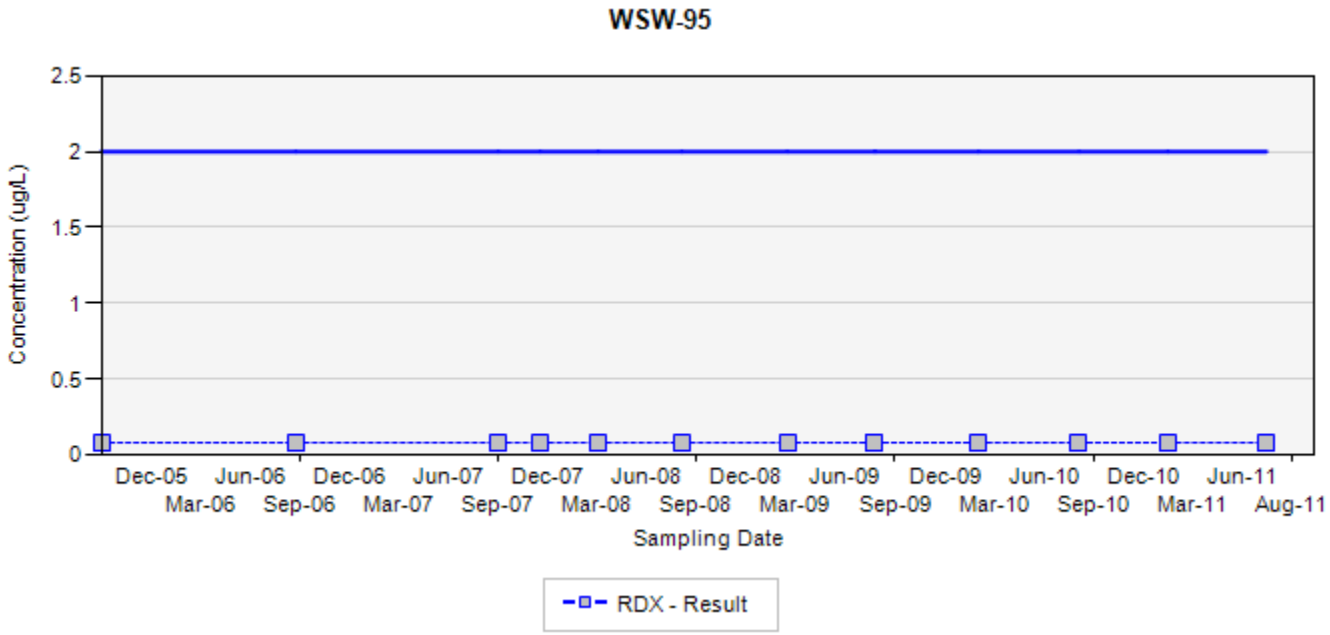

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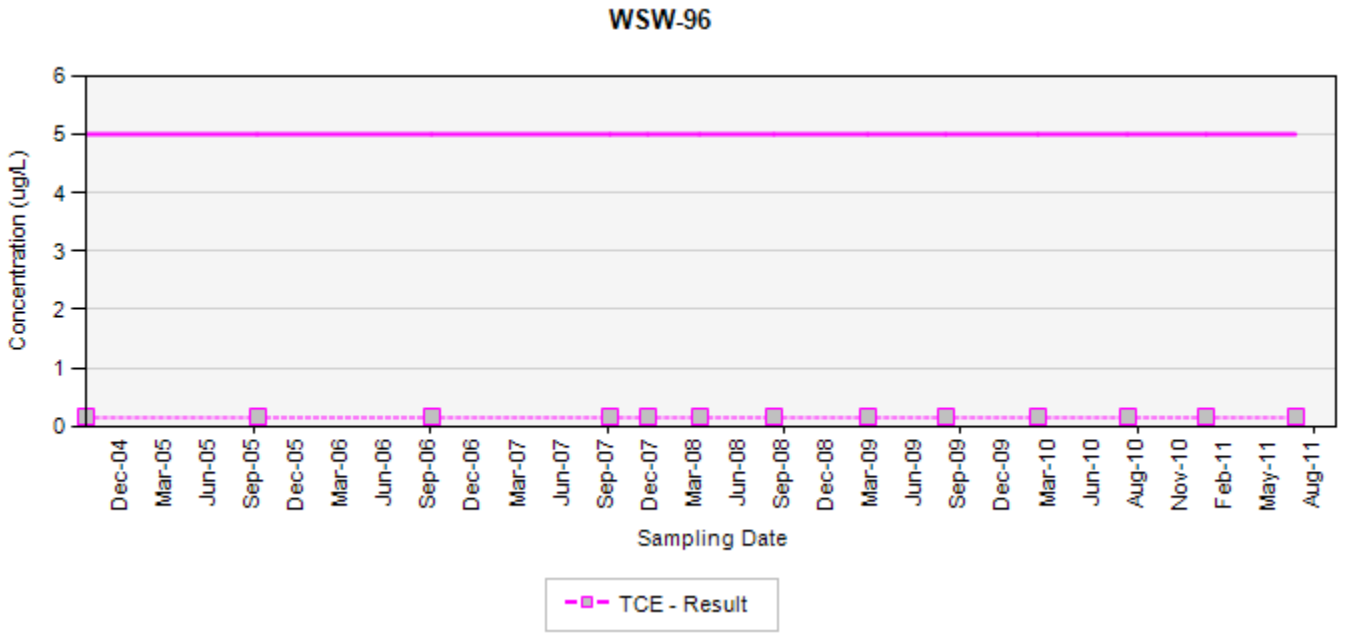

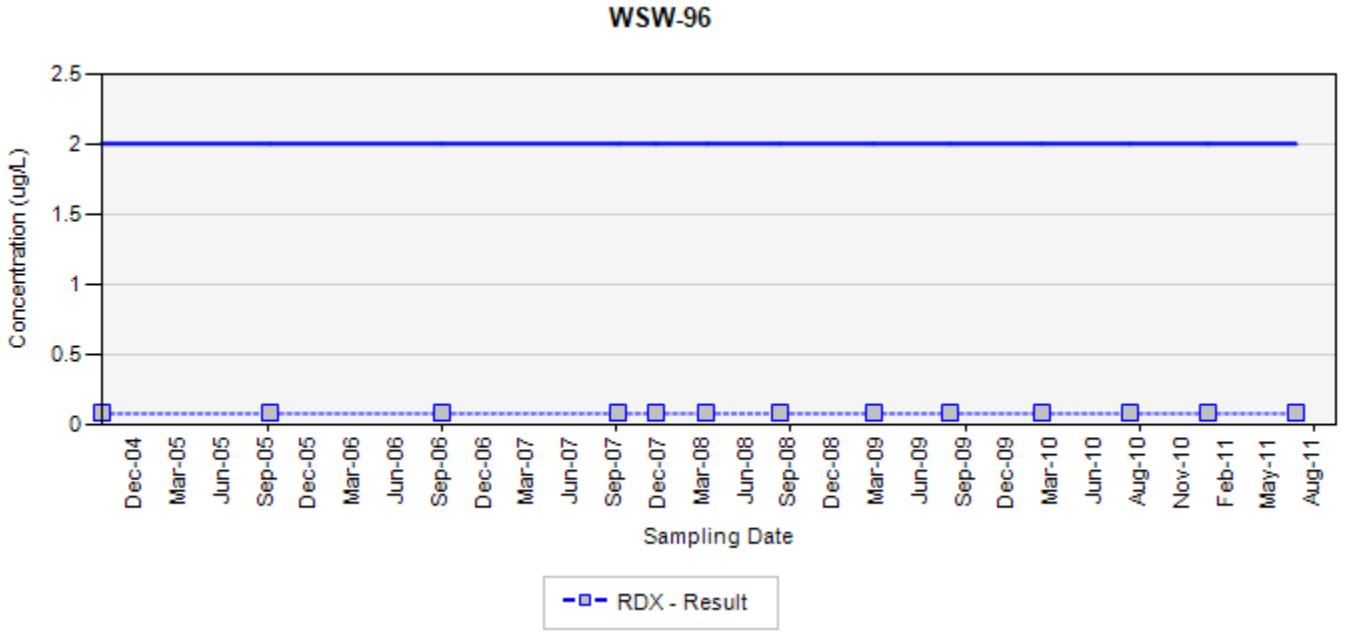

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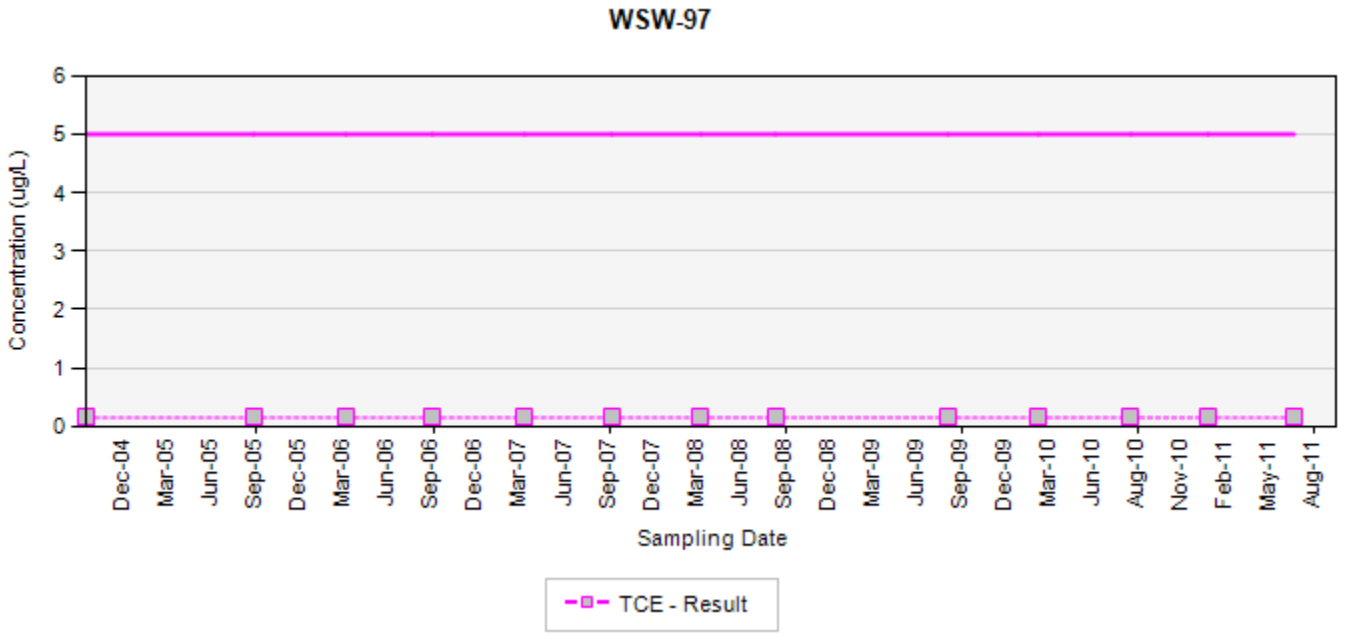

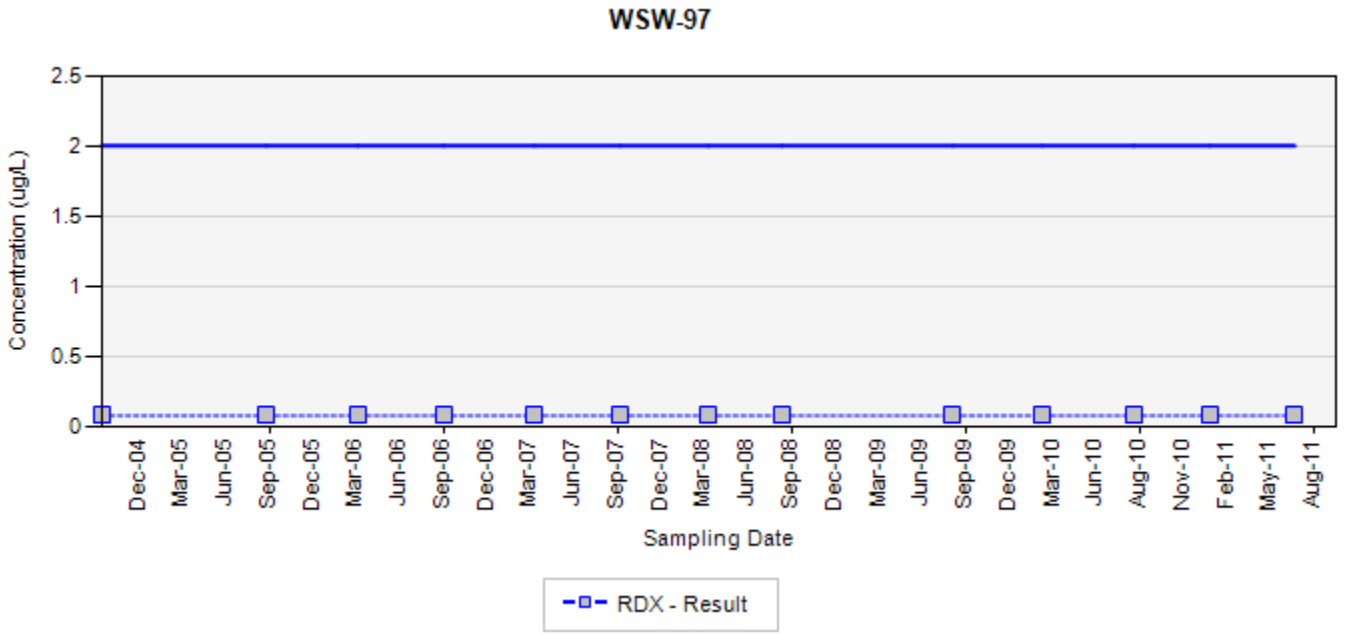

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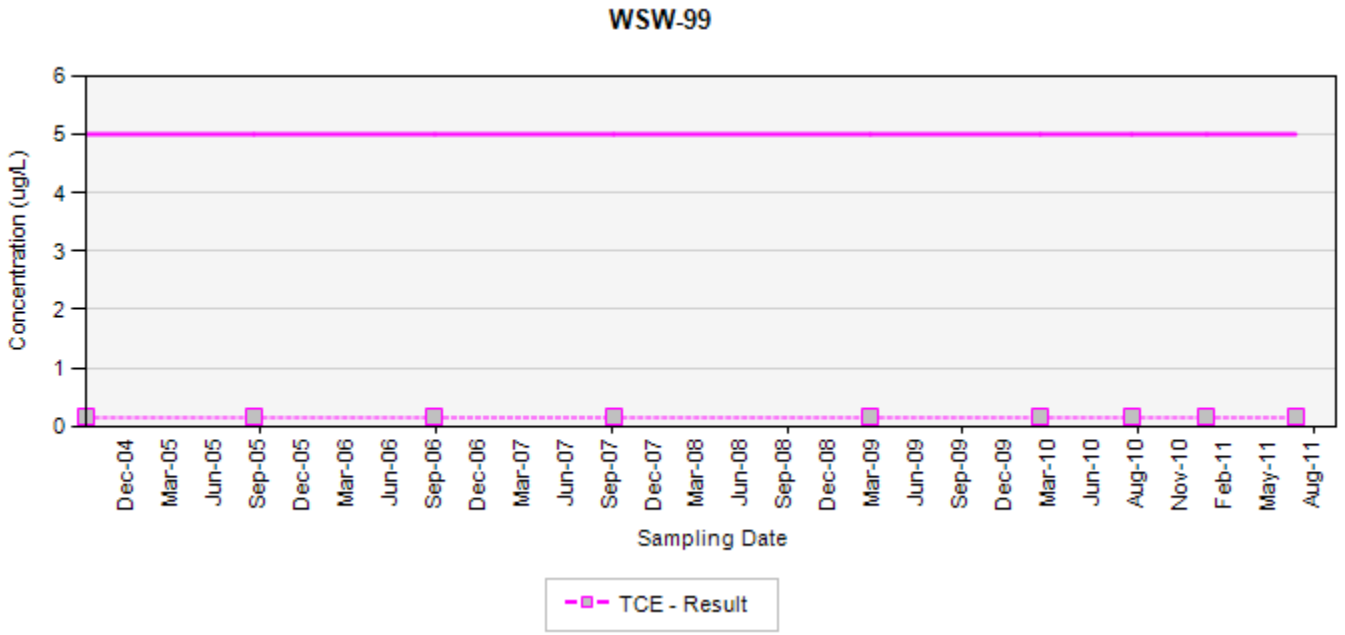

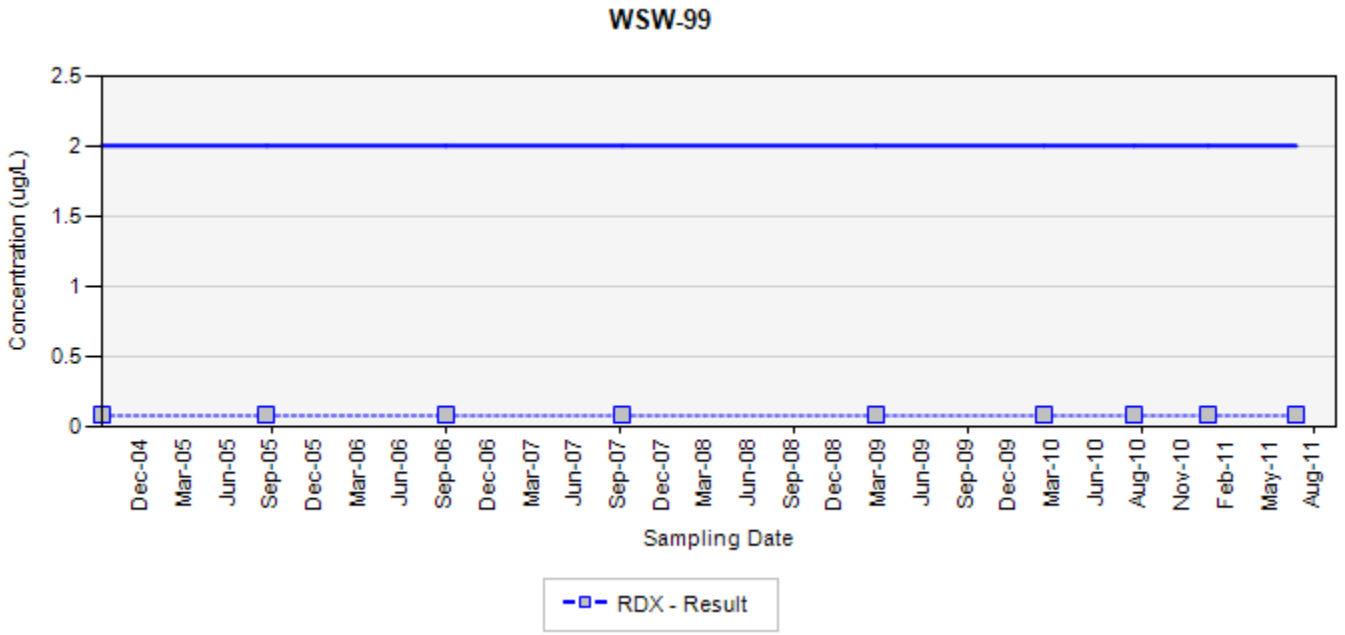

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Appendix C
Concentration Trend Charts for Select Surface Water Locations

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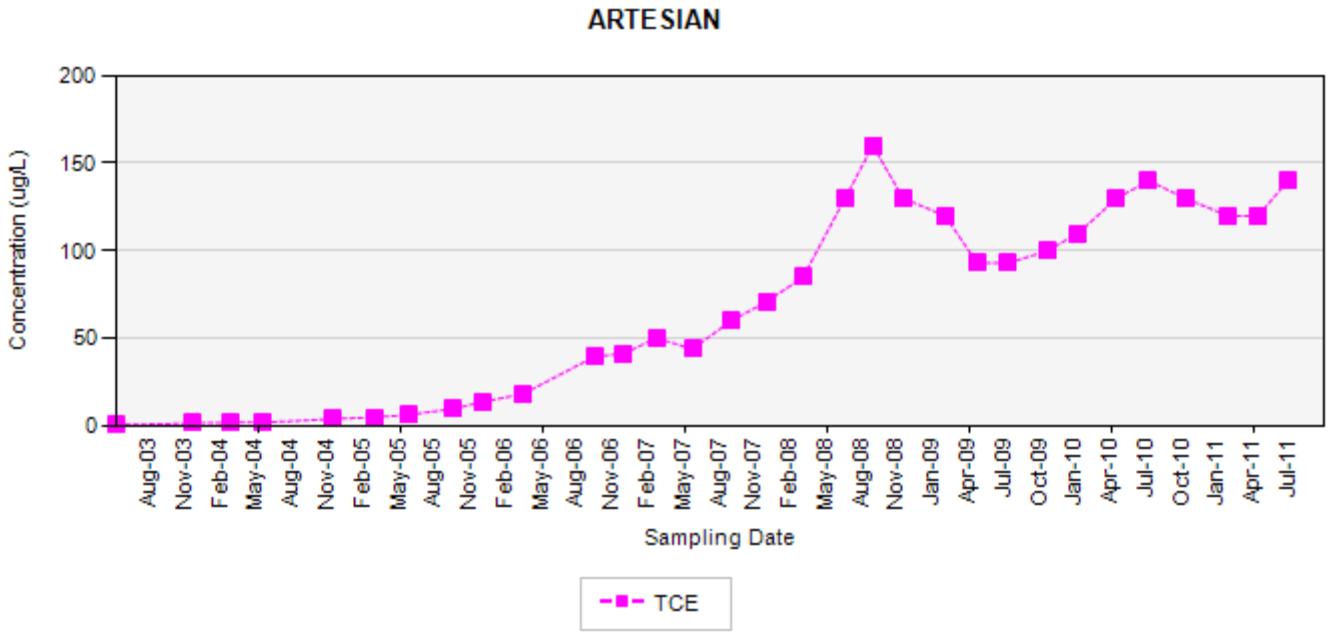
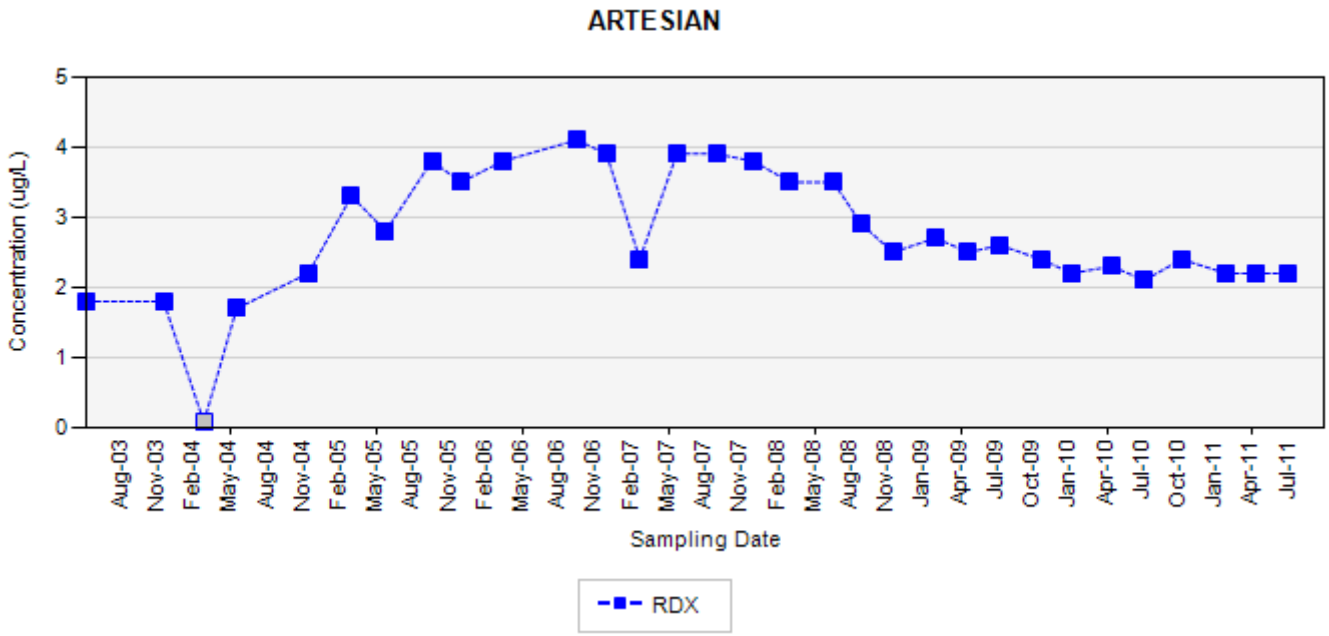
Appendix C
Concentration Trend Charts for Select Surface Water
Former Nebraska Ordnance Plant, Mead, Nebraska





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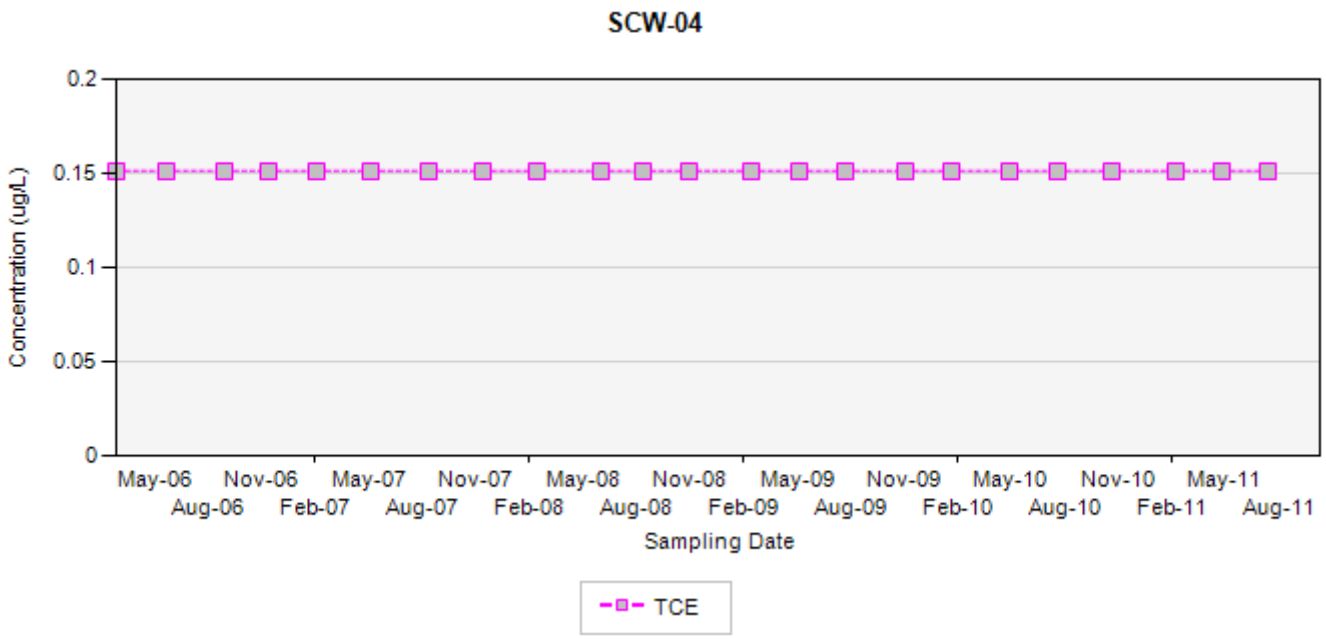
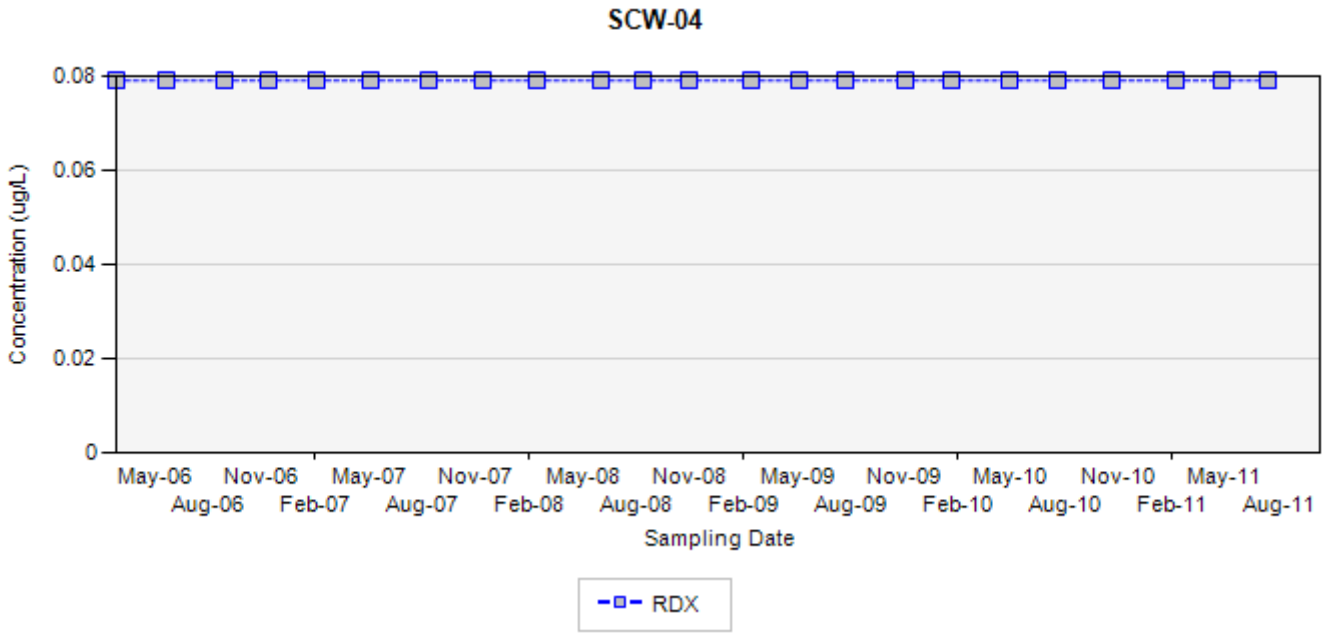
Concentration Trend Charts for Select Surface Water
Former Nebraska Ordnance Plant, Mead, Nebraska





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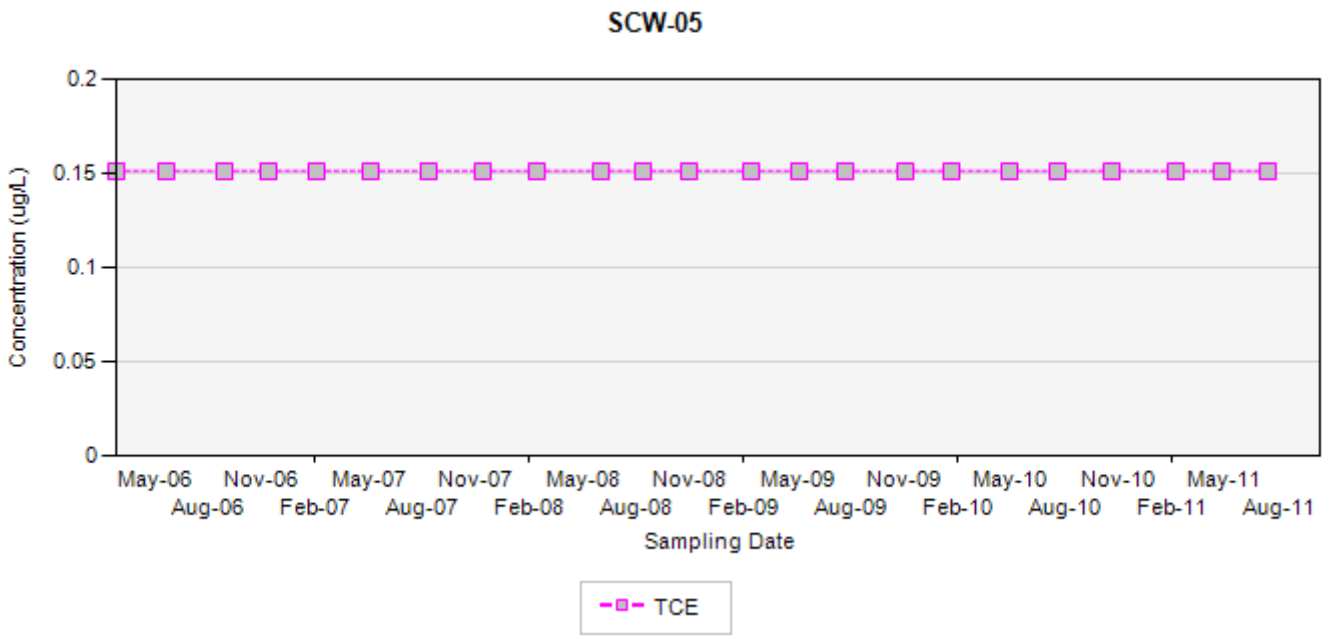
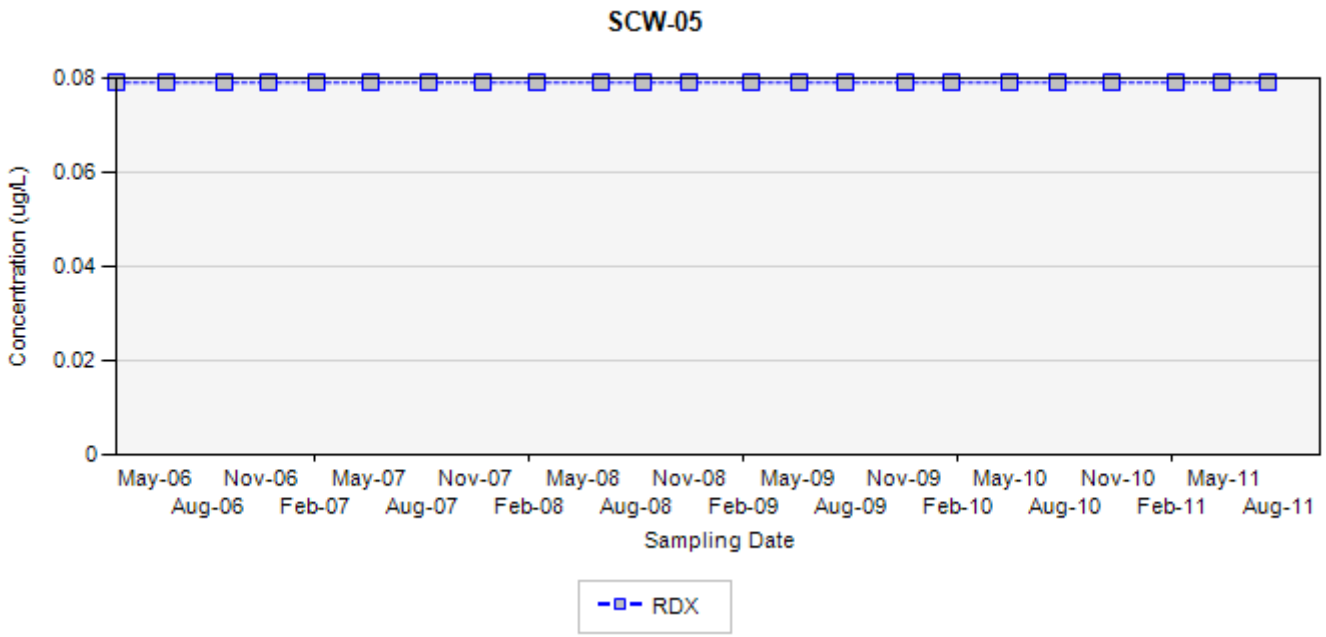
Former Nebraska Ordnance Plant, Mead, Nebraska





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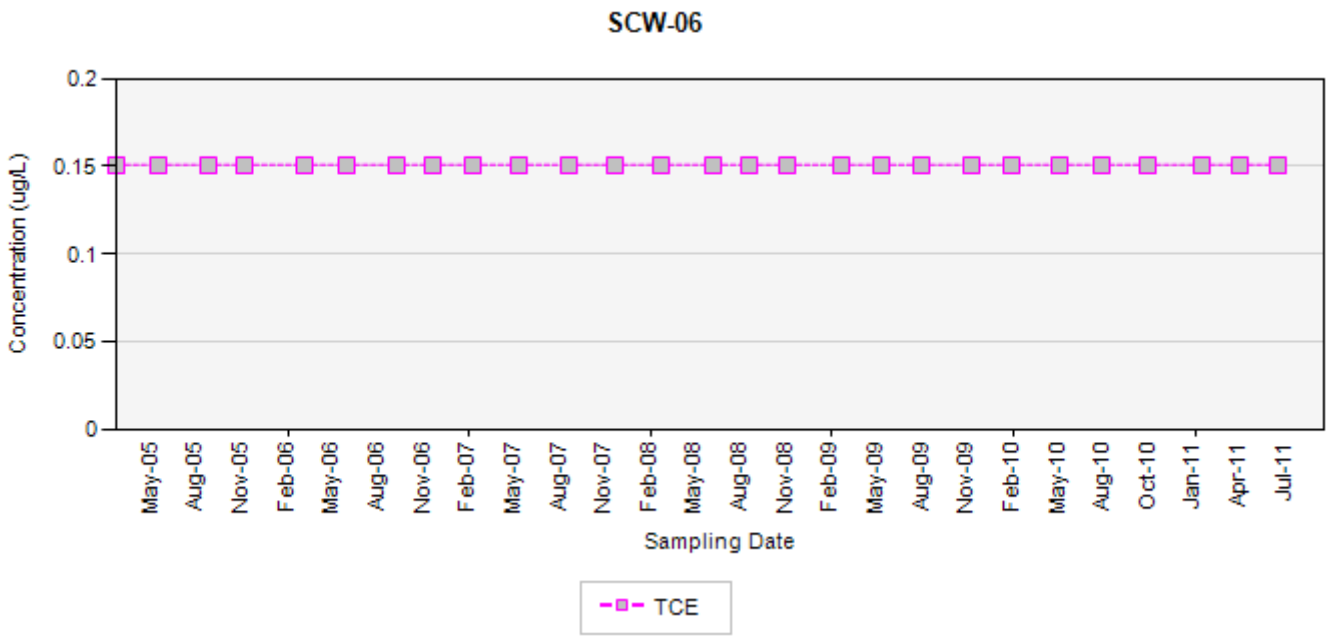

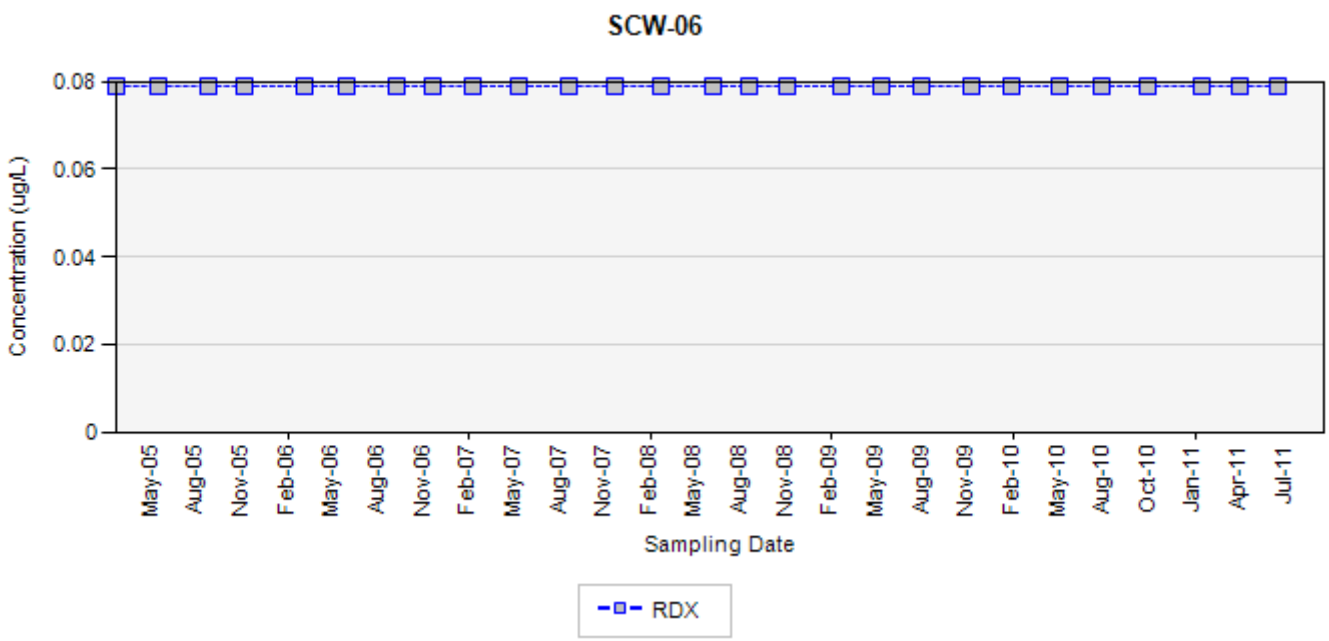

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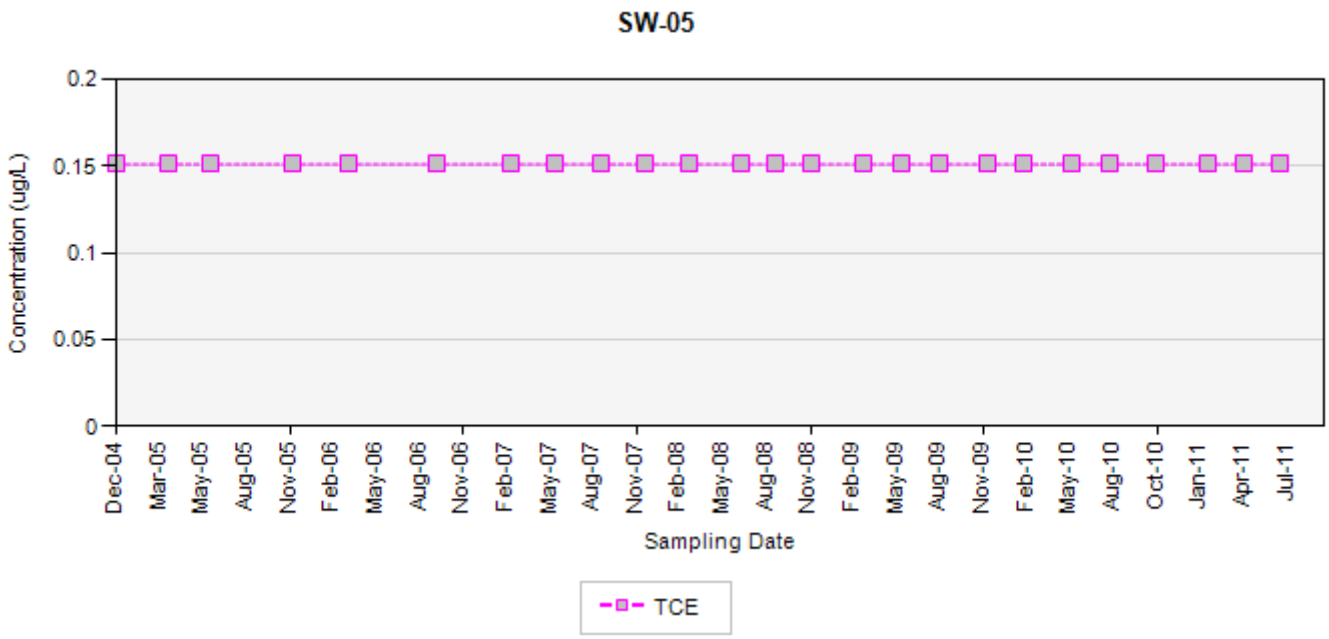

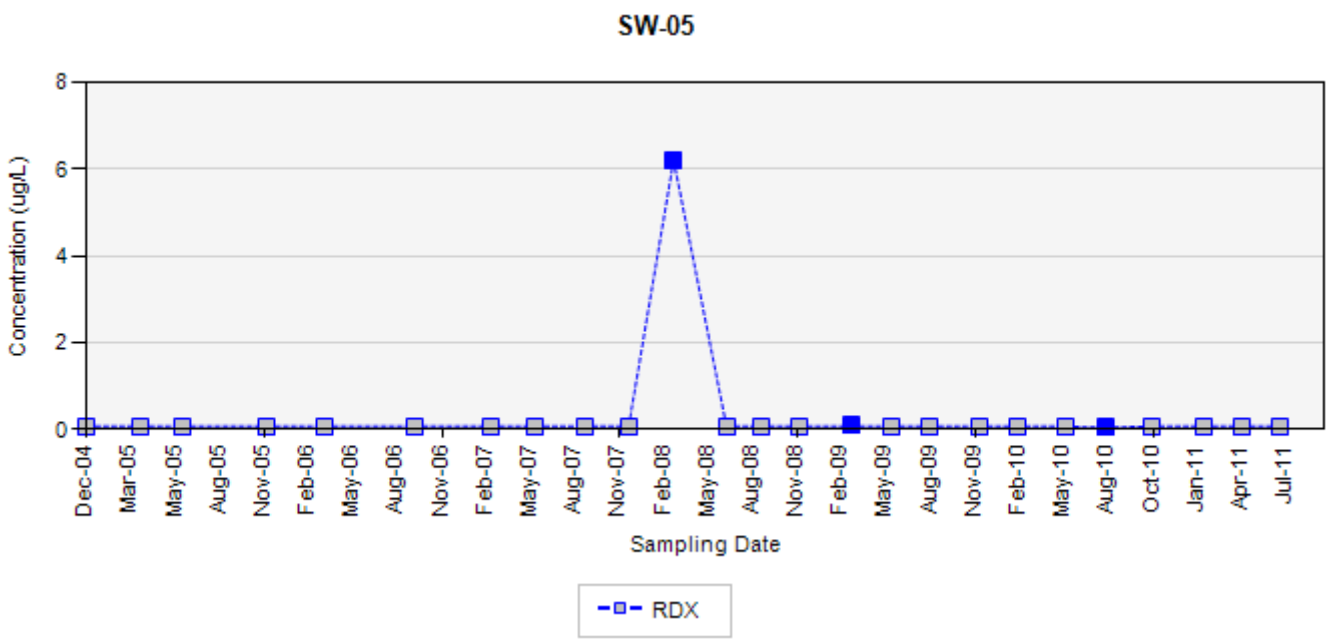

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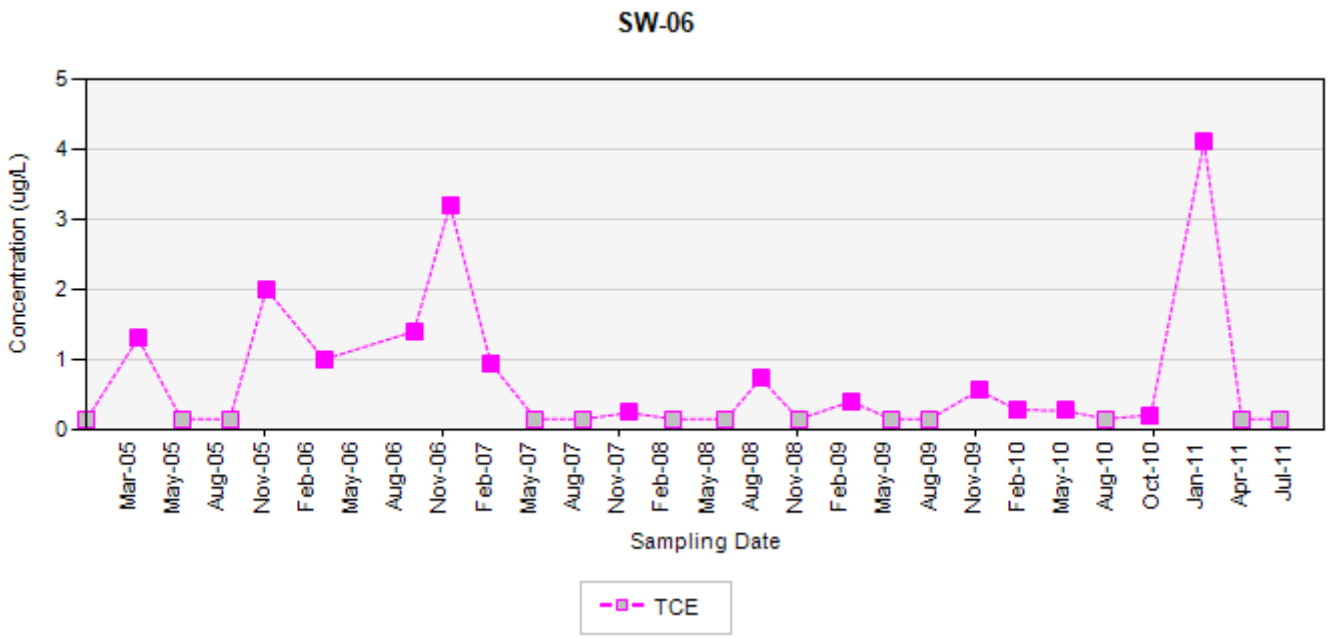

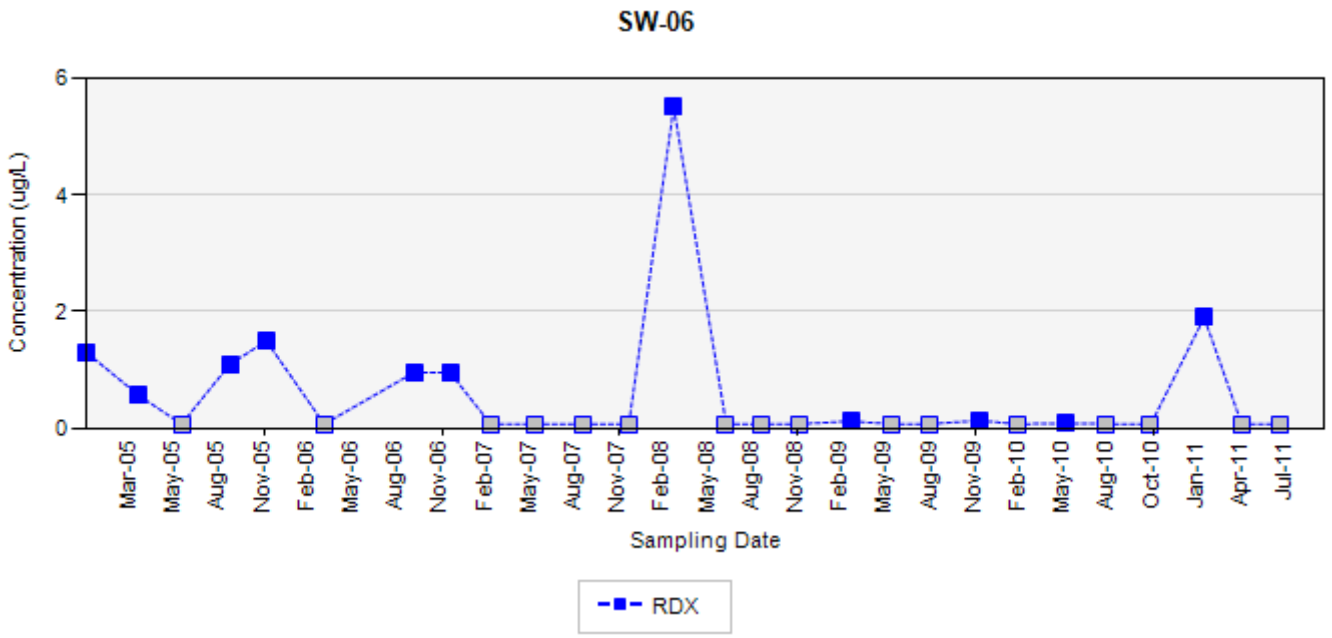

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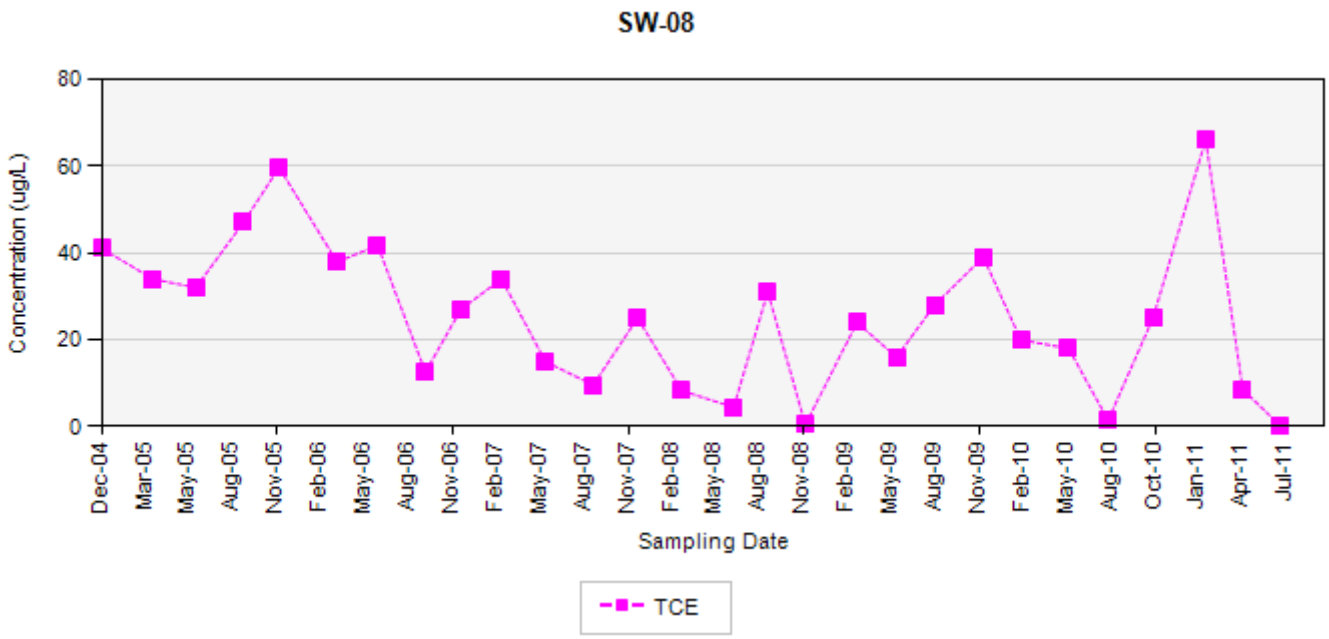

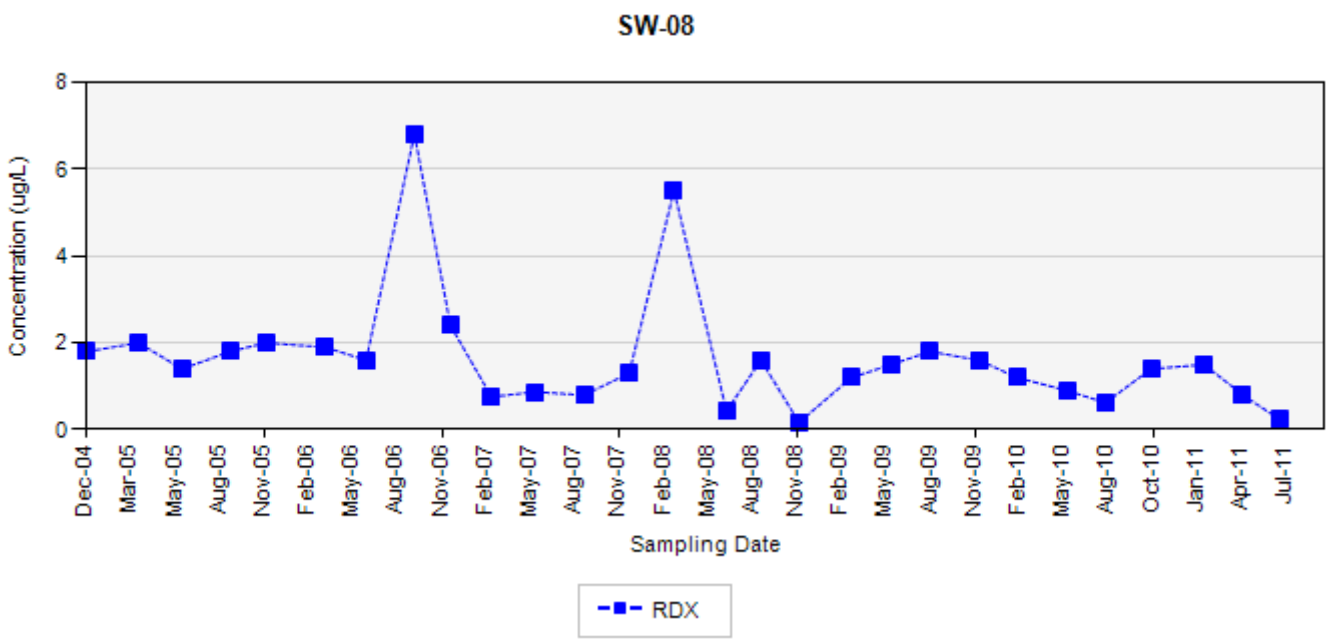

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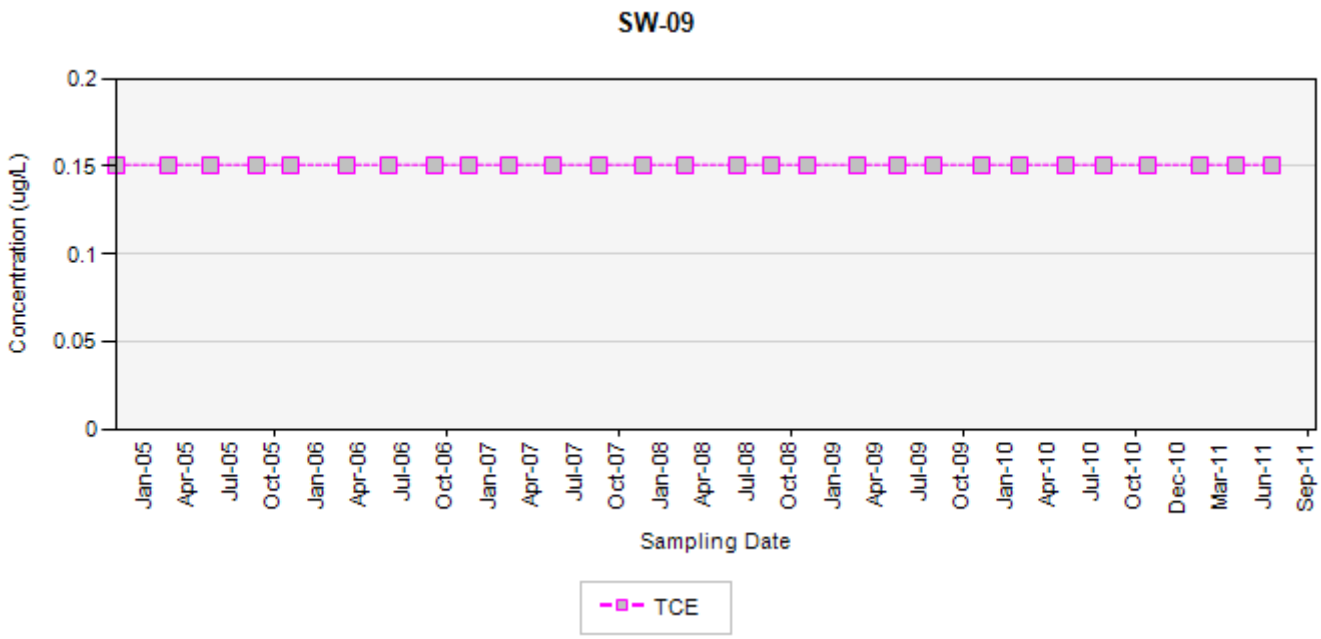

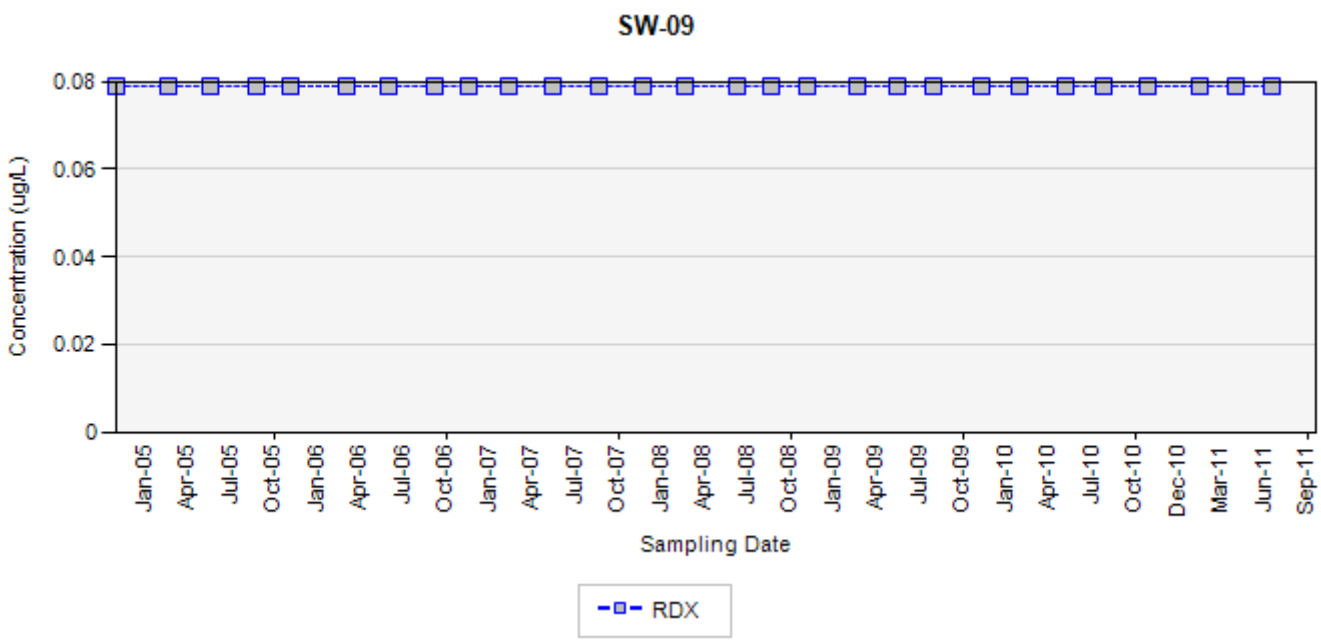

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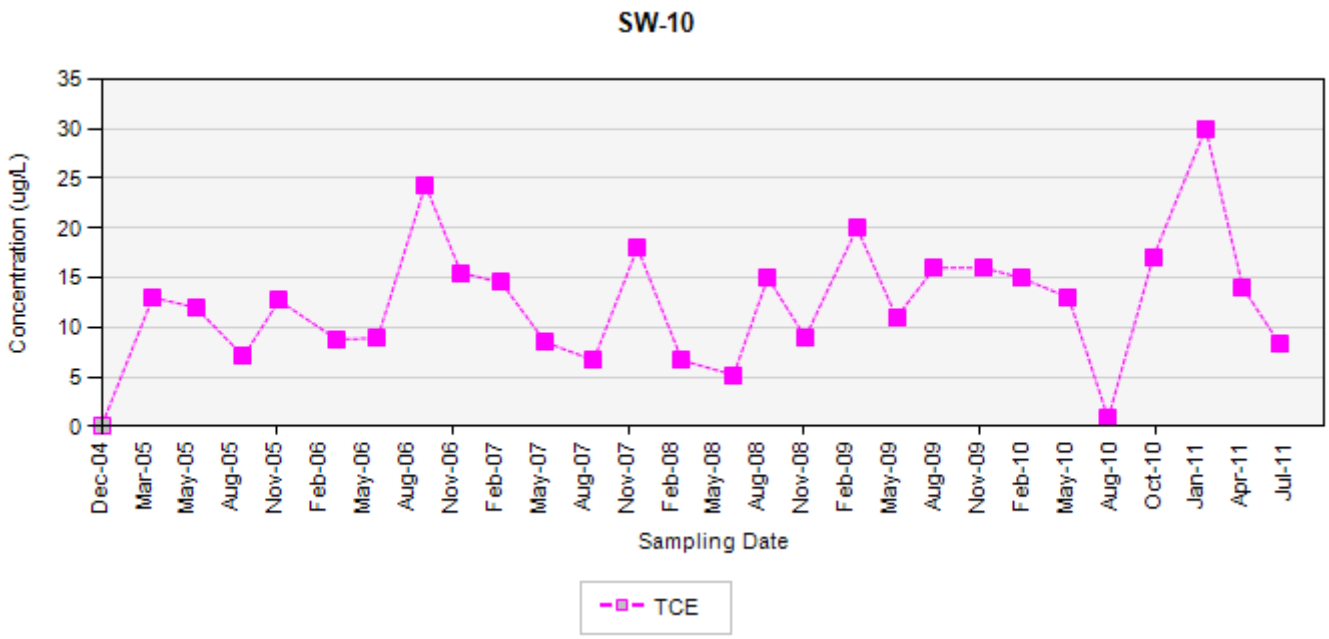
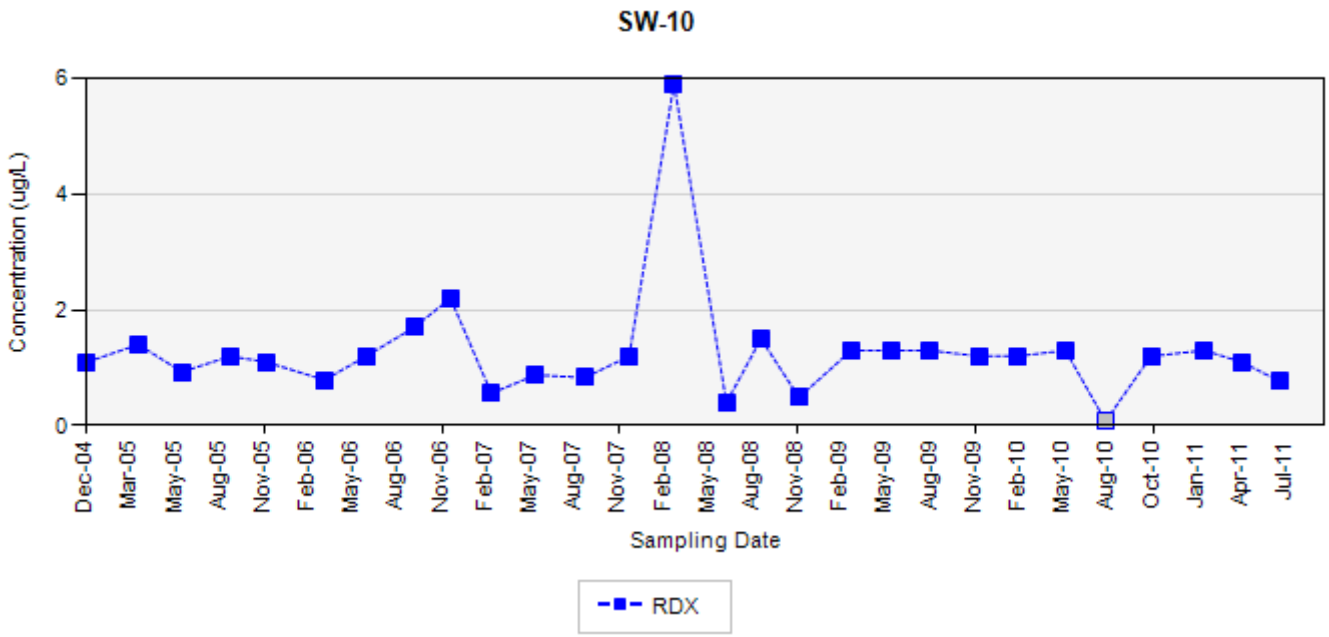
Former Nebraska Ordnance Plant, Mead, Nebraska



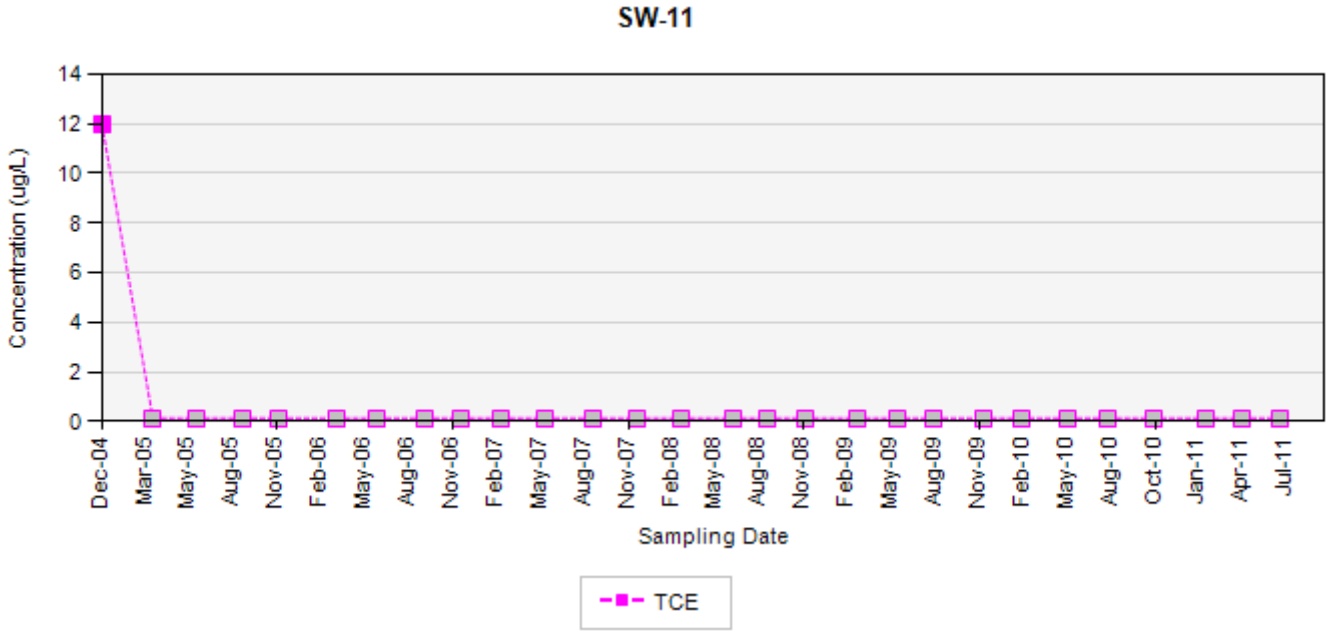


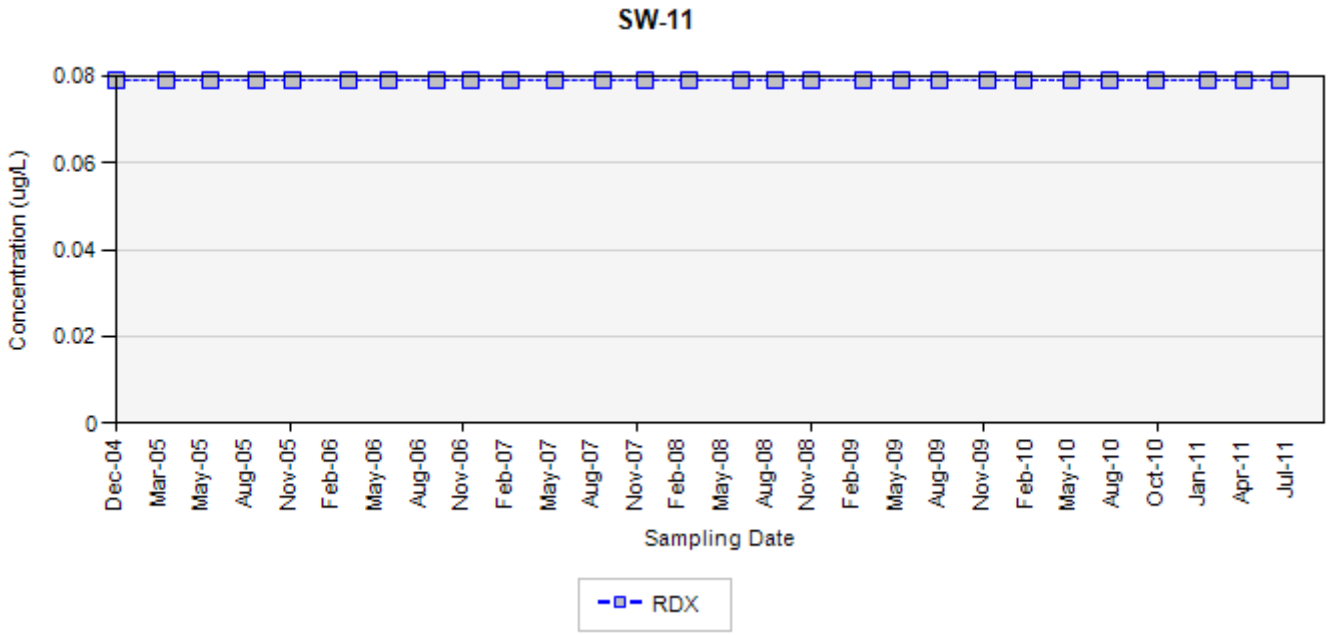
TCE - trichloroethene
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
Nebraska Department of Environmental Quality surface water criteria (chronic) "for the protection of aquatic life and their uses for TCE is 810 µg/L
Final Effluent Limitations Monitoring Requirements provided by the State of Nebraska for RDX is 100 µg/L

In the event that both a normal sample and a field duplicate were collected, the higher of the two results will be displayed on the chart

ug/L: micrograms per liter
Silver markers indicate non-detected results

Appendix C
Concentration Trend Charts for Select Surface Water
Former Nebraska Ordnance Plant, Mead, Nebraska





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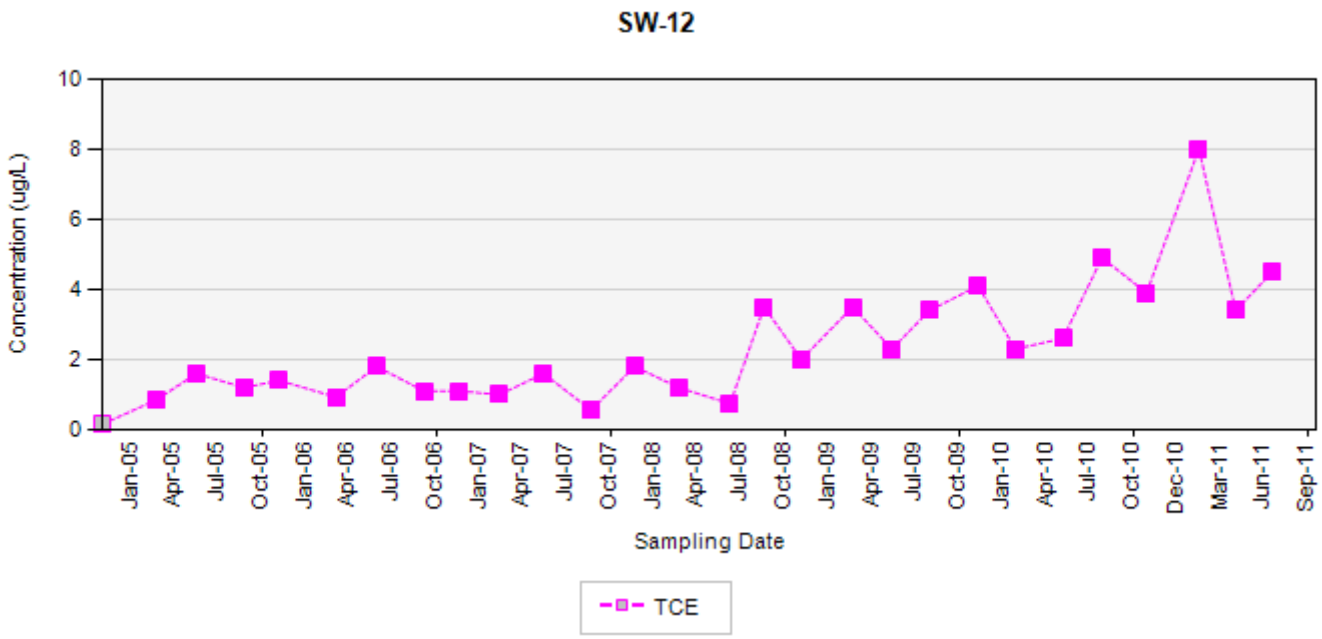

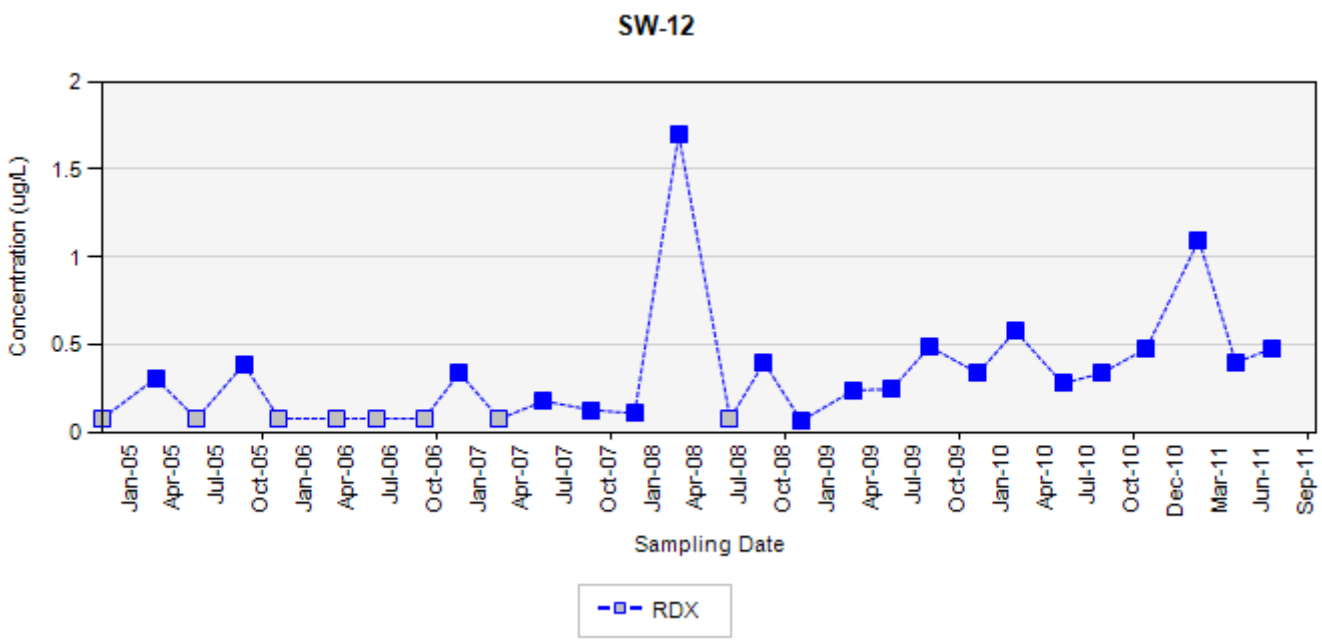

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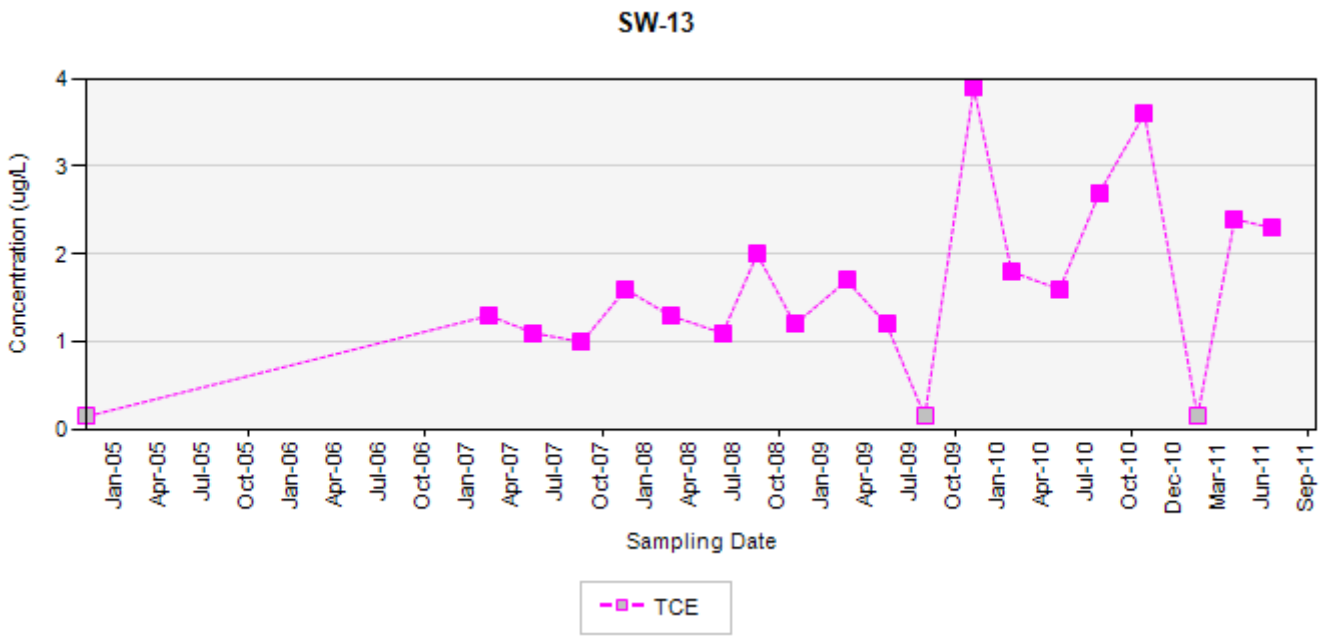
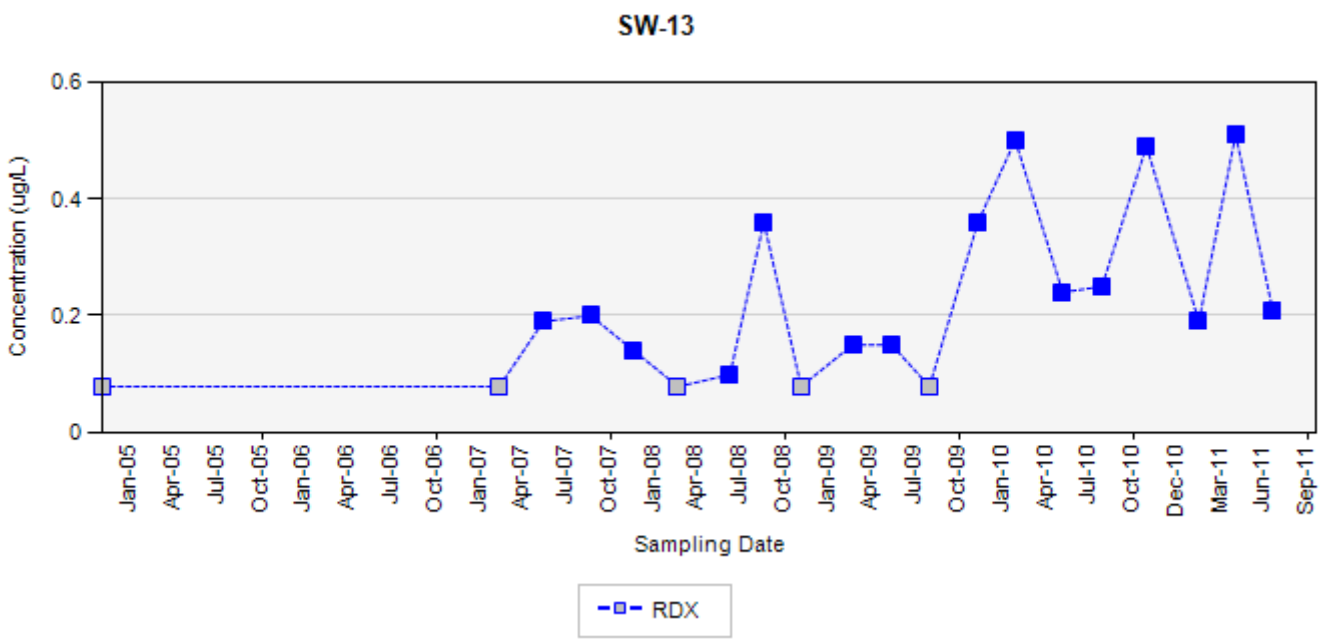
Former Nebraska Ordnance Plant, Mead, Nebraska





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ug/L: micrograms per liter
Silver markers indicate non-detected results

Appendix D

Quality Control Summary Report Third Quarter 2011 Groundwater Monitoring Program Sampling Events, Former Nebraska Ordnance Plant

(on CD)

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Regional Office

1746 Cole Boulevard
Building 21, Suite 350
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November 18, 2011

U.S. Army Corps of Engineers, Kansas City District
Attn: Jerry Montgomery
601 East 12th Street
Kansas City, MO 64106-2896

Re: Transmittal of the Final Quality Control Summary Report
Third Quarter 2011 Groundwater Monitoring Program Sampling Events
Former Nebraska Ordnance Plant, Mead, Nebraska
Contract No. W912DQ-08-D-0001, Task Order No. 0002

Dear Mr. Montgomery:

ECC is hereby transmitting one electronic copy of the Final Quality Control Summary Report for the Third Quarter 2011 Groundwater Monitoring Program Sampling Events at the former Nebraska Ordnance Plant, Mead, Nebraska.

Please contact Mr. Brady Bigelow or me if you require additional information.

Sincerely,

John Ryder
Project Chemist
ECC

Enclosures
cc: Ms. Kristine Stein (USACE)
Mr. Jason L'Ecuyer (USACE)
Mr. Bradley Brink (USACE)
Mr. Kirk Boese (USACE)
Ms. Jacqy Frazier (USACE)

Corporate Office

1240 Bayshore Highway
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TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE: November 18, 2011	TRANSMITTAL NO. 2011-091

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by contractor)

Attn: Jerry Montgomery USACE, Kansas City District 601 E. 12th St. Kansas City, MO 64106-2896	FROM: John Ryder ECC 1746 Cole Blvd, Bldg 21, Lakewood, CO 80401	CONTRACT NO. W912DQ-08-D-0001, Task Order 0002	CHECK ONE: __X__ THIS IS A NEW TRANSMITTAL ____ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SECTION NO. (cover only one section with each transmittal)	PROJECT TITLE AND LOCATION: Groundwater Monitoring Program, Former Nebraska Ordnance Plant, Mead, Nebraska		CHECK ONE: ___ FIO __X__ For Govt. Approval

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)* *b.*	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction No. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*	FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruc. no. 6)* *h.*	FOR C E USE CODE *i.*
1	Quality Control Summary Report -Final		1					
	Third Quarter 2011 Goundwater Monitoring Program Sampling Events							

REMARKS
Kristine Stein (USACE)
Jason L'Ecuyer (USACE)
Bradley Brink (USACE)
Kirk Boese (USACE)
Jacqy Frazier (USACE)

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.
John Ryder, Denver Operations Group

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

FINAL
QUALITY CONTROL SUMMARY REPORT
THIRD QUARTER 2011

GROUNDWATER MONITORING PROGRAM
SAMPLING EVENTS

FORMER NEBRASKA ORDNANCE PLANT
MEAD, NEBRASKA

Prepared for

United States Army Corps of Engineers
Kansas City District

November 2011

ECC
1746 Cole Boulevard, Suite 350
Lakewood, Colorado 80401

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Quality Control Summary Report
Third Quarter 2011 Groundwater Monitoring Sampling Events
Former Nebraska Ordnance Plant, Mead, Nebraska

1.0 INTRODUCTION

Monitoring well and surface water sampling were conducted between July 5 and August 29, 2011 at the former Nebraska Ordnance Plant, near Mead, Nebraska. All sampling activities were performed in accordance with the *Site Wide Work Plan, Support Services, Operable Unit No. 2 (Groundwater), Former Nebraska Ordnance Plant, Mead, Nebraska* (ECC, 2009). This Quality Control Summary Report presents a summary of the chemical data quality review for the Third Quarter 2011 monitoring well and surface water sampling event.

Samples were analyzed for one or both of the following constituents:

- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) SW-846 Method 8260B; and
- Explosives by EPA SW-846 Method 8330.

All analyses were performed by TestAmerica of South Burlington, Vermont.

Table 1-1 presents a complete list of the monitoring wells planned for sample collection, the corresponding sample identifications (IDs), and the requested analyses for the Third Quarter 2011 monitoring well sampling event. Table 1-2 presents the surface water locations planned for sample collection, the corresponding sample IDs, and the requested analyses for the Third Quarter 2011 surface water sampling event.

The chain-of-custody (COC) and field notes are included as Appendices A and B, respectively. Appendix C presents an explanation of data validation qualifiers and drinking water standards. Appendix D contains a compact disc (CD) with all analytical data.

2.0 FIELD SAMPLING ACTIVITIES

Samples from 221 monitoring wells were collected during the Third Quarter 2011 monitoring well sampling event. Eleven of these sample locations were sampled using both low-flow and passive methods. All other monitoring wells were sampled using passive method only. VOCs were sampled in 203 of the wells and 191 wells were sampled for explosives. Twenty field duplicate samples by passive collection, one field duplicate samples by low-flow collection, twelve matrix spike (MS)/matrix spike duplicate (MSD) pairs, and four rinsate blanks were also collected with the monitoring well samples by low-flow collection. Additionally, 11 trip blanks were included with the VOC sample shipments.

During the Third Quarter 2011 surface water sampling event, 12 surface water locations were sampled. In addition, two field duplicate samples and one MS/MSD sample pair were collected. One trip blank was included with the VOC sample shipment.

Table 2-1 and Table 2-2 provide the following sample collection information for monitoring well and surface water sampling events, respectively:

- Quality Control (QC) sample information (field duplicates);
- MS/MSD sample information;
- A cross-reference between laboratory sample IDs and field sample IDs;
- Sample delivery group (SDG) numbers;
- COC numbers;
- Dates of sample collection and sample receipt by the laboratory; and
- Requested analyses.

3.0 DATA QUALITY EVALUATION PROCEDURES

The following subsections present results of the data quality evaluation. This evaluation was performed in accordance with the *Mead Validation Guidelines*, (ECC, 2007, approved by United States Army Corps of Engineers [USACE] 2007). Qualifiers were assigned based on laboratory QC criteria. Data quality evaluation results are presented in Table 3-1 for the monitoring wells and in Table 3-2 for the surface water samples. The QC outliers for the VOC and explosives analyses for the monitoring wells samples are presented in Table 3-3 and Table 3-4, respectively. The QC outliers for the explosives analyses for the surface water samples are presented in Table 3-5. There were no QC outliers for the VOC analyses of the surface water samples.

3.1 Sample Receipt at the Laboratory

The samples were received in good condition and the sample coolers were received within the recommended temperature range of 4 ± 2° C or just below 2° C, but not frozen.

3.2 Holding Times

All samples were prepared and analyzed within the required holding times.

3.3 Tuning and Calibration

According to the *Mead Validation Guidelines* (ECC, 2007), assessment of tune and calibration information is assessed using the laboratory case-narrative or summary forms. No deviations for the calibration and tuning of pertinent instrumentation were reported by the laboratory in the case narratives and evaluation of the calibration summary forms indicated that all project criteria were met.

3.4 Laboratory Method Blanks

A laboratory method blank is an analyte-free matrix that is carried through the entire preparation and analysis sequence for the purpose of identifying potential contamination introduced during preparation and analysis. Method blanks were analyzed for each sample batch for all analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections are qualified as non-detect (U) if the concentration in the sample is less than 5 times the concentration in the associated blank. For common laboratory contaminants, detections are qualified as non-detect (U) if the concentration in the sample is less than 10 times the concentration in the associated blank. Sample results that are either non-detect (U), or greater than 5 or 10 times the blank result do not require qualification.

Methylene chloride, *cis*-1,2-dichloroethene, *trans*-1,2-dichloroethene, trichloroethene (TCE), and/or vinyl chloride were detected in several method blanks resulting in qualification of the detections for these compounds in the well samples. Refer to Table 3-1 for data quality evaluation results. Table 3-3 presents the VOC QC outliers and associated samples for all assigned qualifiers for the monitoring well sampling event.

Additional method blank detections did not result in sample qualification as the associated sample results were non-detects.

3.5 Trip Blanks

A trip blank is an analyte-free matrix that accompanies samples through the sample collection and transportation process to identify potential VOC contamination. In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections are qualified as non-detect (U) if the concentration in the sample is less than 5 times the concentration in the associated blank (10 times for common laboratory contaminants). Sample results that are either non-detect (U), or greater than 5 or 10 times the blank result do not require qualification.

There were no detections of target analytes in the VOC trip blanks.

3.6 Rinsate Blanks

A rinsate blank is a sample of analyte-free rinse water that is poured over decontaminated field sampling equipment prior to further sample collection. Rinsate blanks identify potential contamination introduced during the sample collection process. In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections are qualified as non-detect (U) if the concentration in the sample is less than 5 times the concentration in the associated blank (10 times for common laboratory contaminants). Sample results that are either non-detect (U), or greater than 5 or 10 times the blank result do not require qualification.

Four rinsate blanks were collected for monitoring well samples by low-flow collection. Methylene chloride was detected in one of the rinsate blank; however, methylene chloride was also detected in the method blank and was qualified as non-detect in the rinsate blank. Refer to Table 3-1 for data quality evaluation results for the monitoring well sampling event. Table 3-3 presents the VOC QC outliers for the monitoring well sampling event and associated samples for all assigned qualifiers.

3.7 Surrogates

Surrogates are compounds not normally found in the environment that are added (spiked) into samples prior to extraction (for extractable methods) or prior to analysis (for non-extractable methods). The percent recovery (% REC) of each surrogate is used to assess the success of the sample preparation process for an individual sample.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects and UJ-coded for non-detects if the surrogate % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects.

All VOC samples (including a trip blank) had surrogate % RECs within the QC limits.

For explosives analysis, the surrogate compound 1,2-dinitrobenzene was not recovered in one sample and above the QC limits in another samples resulting in rejection of all compounds in the sample with 2 %REC and qualification of detections as estimated in the sample with high %REC. Although the laboratory re-extracted and analyzed the sample with 2 %REC, re-extraction was performed beyond 2 times the 7 day holding time and was also considered unusable. Additionally, the % REC for 1,2-dinitrobenzene on the confirmation column exceeded the laboratory QC limits for several samples. However, no qualification was required because all associated results were reported from the primary column which met % REC criteria for these samples. Refer to Table 3-1 for data quality evaluation results for the monitoring well sampling event. Table 3-4 presents the explosives QC outliers for the monitoring well sampling event and associated samples for all assigned qualifiers.

3.8 Laboratory Control Sample / Laboratory Control Sample Duplicate

A laboratory control sample (LCS) consists of a matrix similar to that of the field sample, which is spiked with known concentrations of analytes. The LCS % REC is a measure of the accuracy of the preparation and analytical methods. The laboratory control sample duplicate (LCSD) is a duplicate preparation and analysis of the LCS. The differences between the LCS and LCSD recoveries are used to calculate the relative percent differences (RPD), which is a measure of the precision of the preparation and analytical methods. LCS samples were analyzed for each sample batch for all analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the LCS % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if the % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects.

Additionally, results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds 30%.

For VOC analyses, %RECs for *cis*-1,2-dichloroethene in two LCSs exceeded the QC limit; however, no sample results were qualified since *cis*-1,2-dichloroethene was not detected in any of the associated samples.

All other LCS/LCSD % RECs and RPDs were within laboratory QC limits.

3.9 Matrix Spike / Matrix Spike Duplicate

MS and MSD samples were analyzed for both volatile organic analyses and explosives. A field sample is split into three portions (original, MS, and MSD) and known amounts of analytes are added (spiked) into the MS and MSD portions of the sample. The analytical results of these two portions are compared to each other for reproducibility using the RPD. These results are also compared against the un-spiked portion of the sample for % REC of the spiked analytes. MS/MSD analyses were performed on the appropriate samples collected, see Table 2-1. Several additional explosive MS/MSD analyses were performed by the laboratory.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects and UJ-coded for non-detects if the MS/MSD % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects if the MS/MSD % RECs are greater than the QC limits. No action is required for non-detects. Additionally, results for the affected analyte in the associated parent samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds QC limits.

MS/MSD % RECs for trichloroethene (TCE) were outside QC limits and the TCE detection in one monitoring well sample was qualified estimated (J). MS/MSD %RECs for *cis*-1,2-dichloroethene were outside QC limit; however, *cis*-1,2-dichloroethene were not detected in the parent samples and no qualification was required.

MS/MSD %RECs RPDs for all six target compounds in one sample and five of the six target compounds in another sample were below the QC limits resulting in qualifications.

Refer to Table 3-1 for data quality evaluation results for the monitoring well sampling event and qualified samples. Table 3-3 presents the VOC QC outliers and associated samples and Table 3-4 presents the explosives QC outliers and associated samples for all assigned qualifiers for the monitoring well sampling event.

All remaining % RECs and RPDs were within QC limits.

3.10 Field Duplicates

Field duplicates provide information regarding the reproducibility of analytical results and account for error introduced from handling, shipping, preparing, and analyzing field samples.

The following field duplicate pairs were collected during the Third Quarter 2011 monitoring well sampling event:

- AMW-024-072011 / BMW-224-072011 (VOCs and Explosives);
- BMW-035-072011 / BMW-235-072011 (VOCs and Explosives);
- AMW-038-072011 / AMW-238-072011 (VOCs and Explosives);
- AMW-046-072011 / AMW-246-072011 (VOCs and Explosives);
- BMW-086-072011 / BMW-286-072011 (VOCs and Explosives);
- AMW-098-072011 / AMW-298-072011 (VOCs and Explosives);
- BMW-0100-072011 / BMW-2100-072011 (VOCs and Explosives);
- BMW-0100-072011LF / BMW-2100-072011LF (VOCs and Explosives);
- BMW-0101-072011 / BMW-2101-072011 (VOCs and Explosives);
- BMW-0102-072011 / BMW-2102-072011 (VOCs and Explosives);
- AMW-0105-072011 / AMW-2105-072011 (VOCs and Explosives);
- BMW-0106-072011 / BMW-2106-072011 (VOCs and Explosives);
- AMW-0109-072011 / AMW-2109-072011 (VOCs and Explosives);
- BMW-0109-072011 / BMW-2109-072011 (VOCs);
- BMW-0111-072011 / BMW-2111-072011 (VOCs);
- AMW-0118-072011 / AMW-2118-072011 (Explosives);
- AMW-0122-072011 / AMW-2122-072011 (Explosives);
- BMW-0124-072011 / BMW-2124-072011 (VOCs and Explosives);
- BMW-0125-072011 / BMW-2125-072011 (VOCs and Explosives);
- EMW-0144-072011 / EMW-2144-072011 (VOCs and Explosives);
- BMW-0148-072011 / BMW-2148-072011 (VOCs and Explosives);
- AMW-0155-072011 / AMW-2155-072011 (VOCs and Explosives);and
- BMW-0156-072011 / BMW-2156-072011 (VOCs and Explosives).

The following field duplicate pairs were collected during the Third Quarter 2011 surface water sampling event:

- SCW-006-072011 / SCW-206-072011 (VOCs and Explosives); and
- SW-005-072011 / SW-205-072011 (VOCs and Explosives).

The field duplicate precision criteria (RPD of < 50%) was not met in the duplicate pairs for the analytes listed:

- EMW-0144-072011 / EMW-2144-072011: hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) RPD 122 and 4-amino-2,6-dinitrotoluene RPD 72.9

However, in accordance with the *Mead Validation Guidelines* (ECC, 2007), data are not qualified based on field duplicate sample results alone.

Field duplicate results are considered acceptable when one result is not detected and the other result is detected below the limit of quantitation (LOQ) or if both results are less than the LOQ; therefore, they were not listed above as field duplicate precision outliers.

3.11 Dilutions and Re-analyses

Qualifiers assigned as a result of calibration range exceedance are not used in the calculation of analytical data completeness percentages if there are acceptable results from diluted sample analyses.

Twenty-nine sample results for TCE and five sample results for RDX and one result each for 1,3,5-trinitrobenzene and 2,4,6-trinitrobenzene from the monitoring well sampling event were reported from secondary dilution analyses because the initial results exceeded the calibration range. According to the *Mead Validation Guidelines* (ECC, 2007), results exceeding the calibrations range are not used for reporting or project decisions when acceptable results from dilutions are available. Therefore, the results from secondary dilutions should be used for these compounds and the initial least dilute or undiluted analysis should be used for all other results for these samples. [Note: Only the appropriately diluted result was reported by the laboratory from the secondary dilutions and no qualifications were assigned as a result of calibration range exceedance.] Qualifiers were not assigned as a result of calibration range exceedance for the surface water sampling event.

[Note: Several monitoring well samples for VOCs were initially analyzed at dilutions which resulted in elevated limit of detection (LOD) values for the other analytes of concern. No action was taken because TCE was well above both the linear calibration range and the Final Groundwater Target Cleanup Goals for those samples.]

3.12 Other Quality Control Parameters

All detected explosive results were confirmed on a second column. A column comparison between the detected explosive results was made using explosive identification summary forms. The validator confirmed all reported explosive detections for both columns and the intercolumn RPDs.

Detected results with the intercolumn RPDs exceeding 40% are qualified as estimated (J). Refer to Table 3-1 and Table 3-2 for data quality evaluation results and qualified samples monitoring well and surface water sampling events, respectively. Table 3-4 and Table 3-5 present the explosive QC outliers and associated samples for all assigned qualifiers monitoring well and surface water sampling events, respectively. These qualifiers were not used to determine analytical completeness or project completeness.

3.13 Laboratory Qualifiers

Analytes detected below the LOQ, but above the detection limit were quantified and results were assigned an estimated (J) qualifier by the laboratory. These qualifiers were carried over by the validator and were not used to determine analytical completeness or project completeness (Section 4.0).

4.0 OVERALL ASSESSMENT

The following subsections present the field completeness, analytical completeness, and project completeness determinations for the Third Quarter 2011 monitoring well and surface water sampling events.

4.1 Field Completeness

Field completeness for sample collection is assessed by comparing the number of samples collected to the number of samples planned for collection. Field completeness for the monitoring well sampling event was 100% for both VOCs and explosives. Field completeness for the surface water sampling events was 100% for both VOCs and explosives. The overall field completeness percentage was 100% for both monitoring well and surface water Third Quarter 2011 sampling events. All field completeness percentages exceed the field completeness goal of 95%. Section 2.0 presents the field sampling activities, including any deviations from planned sampling if applicable. Table 4-1 and Table 4-2 present field completeness values for the monitoring well and surface water sampling events, respectively.

4.2 Analytical Completeness

Analytical completeness is calculated as both acceptable data completeness and quality data completeness.

Acceptable data is a measure of laboratory contract compliance. Acceptable data includes data that have not been rejected or qualified as estimated (J). Qualified data are considered acceptable if no corrective actions by the laboratory are required or appropriate corrective actions were taken by the laboratory. Acceptable data completeness percentages for VOCs (99.9%) and explosives (98.2%) met the acceptable data completeness goals for each analytical method of 90% for the monitoring well sampling event. Acceptable data completeness percentages for VOCs (100%) and explosives (100%) met the acceptable data completeness goals for each analytical method of 90% for the surface water sampling event. The overall acceptable data completeness of 99.1% for the monitoring well sampling event and 100% for the surface water sampling event both meet the goal of 95%.

Quality data is a measure of the percentage of usable data points. Usable data points include all non-rejected data. Rejected data points with replacement data do not count against the quality data completeness. Six data points were rejected for explosives analysis. No VOC data were rejected for the Third Quarter 2011 monitoring well and surface water sampling events.

The quality data completeness percentage for VOCs is 100% and for explosives is 99.5% for the monitoring well sampling event and 100% for each analytical method for the surface water sampling event which exceeds the quality data completeness goal of 80%. Overall quality data completeness is 99.8% for the monitoring well sampling event and 100% for the surface water sampling event, which exceeds the quality data completeness goal of 80%. Table 4-3 and Table 4-4 present analytical data completeness values for monitoring well and surface water sampling events, respectively.

4.3 Project Completeness

Project completeness combines sampling and analytical protocols to assess the project as a whole. Project completeness is assessed by comparing the percentage of samples/measurements that are determined to be usable to the total number of samples/measurements planned. Project completeness is calculated using field completeness and analytical completeness (quality data) percentages. Field completeness for both sampling events was 100%. Analytical completeness was 99.8% for monitoring sampling event and 100% for surface water sampling event. The monitoring well project completeness percentage of 99.8 % and the surface water project completeness percentage of 100% exceeded the project completeness goal of 90%. Table 4-5 and Table 4-6 present project completeness values for monitoring well and surface water sampling events, respectively.

5.0 CONCLUSIONS

Six data points were qualified as rejected (R). The remaining data are valid for use, as qualified. Overall field completeness is 100%, acceptable data completeness is 99.1%, quality data completeness is 99.8%, and the overall project completeness is 99.8% for the Third Quarter monitoring well sampling event. Overall field completeness is 100%, acceptable data completeness is 100%, quality data completeness is 100%, and the overall project completeness is 100% for the Third Quarter surface water sampling event.

One sample result for TCE and two samples results for explosives analysis were qualified as estimated due to MS/MSD %REC outliers. One sample results for explosives analysis were qualified as rejected due to surrogate %REC outliers. Twenty-nine sample results for TCE and five sample results for RDX from the monitoring well sampling event were reported from a dilution due to calibration range exceedance. These results do not affect analytical or project completeness. Detected results qualified as estimated for intercolumn RPDs exceedances also do not affect analytical or project completeness.

6.0 REFERENCES

ECC, 2009, *Site Wide Work Plan, Support Services, Operable Unit No. 2 (Groundwater), Former Nebraska Ordnance Plant, Mead, Nebraska* (ECC, 2009).

ECC, 2007 *Mead Validation Guidelines*, (approved by USACE 2007).

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Tables

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List of Acronyms for Tables

Term	Definition
µg/L	micrograms per liter
BLK	blank
CAL	calibration
CCB	continuing calibration blank
CCV	continuing calibration verification
CRA	CRDL standard for atomic absorption analysis
CRDL	Contract Required Detection Limit
CRI	CRDL standard for inductively coupled plasma analysis
C-RPD	column relative precent difference
GC/MS	gas chromatography–mass spectrometry
HPLC	high-performance liquid chromatography
ICV	initial calibration verification
ID	identification/identifier
IS	internal standard
J	estimated
Lab	laboratory
LCS	laboratory control sample
LWL	lower warning limit
MS/MSD	matrix spike/matrix spike duplicate
MS	mass-spectrometry
MW	monitoring well
QC	Quality Control
%REC	percent recovery
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
SDG	sample delivery group
SW	surface water
SURR	surrogate
TR	trace level detect
TSS	total suspended solids
U	not detected at laboratory limit of detection
UCL	upper control limit
UJ	qualified as estimated and not detected at laboratory limit of detection
VOC	volatile organic compound

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Table 1-1
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Wells	Sample IDs	Analyses
MW-100A	AMW-0100-072011	Explosives, Volatiles
MW-100A*	AMW-0100-072011LF	Explosives, Volatiles
MW-100B	BMW-0100-072011	Explosives, Volatiles
MW-100B*	BMW-0100-072011LF	Explosives, Volatiles
MW-100D	DMW-0100-072011	Explosives, Volatiles
MW-100D*	DMW-0100-072011LF	Explosives, Volatiles
MW-101A	AMW-0101-072011	Explosives, Volatiles
MW-101B	BMW-0101-072011	Explosives, Volatiles
MW-101D	DMW-0101-072011	Explosives, Volatiles
MW-102A	AMW-0102-072011	Explosives, Volatiles
MW-102B	BMW-0102-072011	Explosives, Volatiles
MW-102D	DMW-0102-072011	Explosives, Volatiles
MW-103A	AMW-0103-072011	Explosives, Volatiles
MW-103B	BMW-0103-072011	Explosives, Volatiles
MW-103D	DMW-0103-072011	Explosives, Volatiles
MW-104A	AMW-0104-072011	Explosives, Volatiles
MW-104B	BMW-0104-072011	Explosives, Volatiles
MW-104D	DMW-0104-072011	Explosives, Volatiles
MW-104O	OMW-0104-072011	Explosives, Volatiles
MW-105A	AMW-0105-072011	Explosives, Volatiles
MW-105B	BMW-0105-072011	Explosives, Volatiles
MW-105O	OMW-0105-072011	Explosives, Volatiles
MW-106A	AMW-0106-072011	Explosives, Volatiles
MW-106B	BMW-0106-072011	Explosives, Volatiles
MW-106D	DMW-0106-072011	Explosives, Volatiles
MW-107A	AMW-0107-072011	Explosives, Volatiles
MW-107B	BMW-0107-072011	Explosives, Volatiles
MW-107D	DMW-0107-072011	Explosives, Volatiles
MW-108A	AMW-0108-072011	Explosives, Volatiles
MW-108B	BMW-0108-072011	Explosives, Volatiles
MW-108D	DMW-0108-072011	Explosives, Volatiles
MW-109A	AMW-0109-072011	Explosives, Volatiles
MW-109B	BMW-0109-072011	Explosives, Volatiles
MW-109O	OMW-0109-072011	Explosives, Volatiles
MW-110A	AMW-0110-072011	Explosives, Volatiles
MW-110B	BMW-0110-072011	Explosives, Volatiles
MW-110D	DMW-0110-072011	Explosives, Volatiles
MW-111A	AMW-0111-072011	Explosives, Volatiles
MW-111B	BMW-0111-072011	Explosives, Volatiles
MW-111O	OMW-0111-072011	Explosives, Volatiles
MW-112A	AMW-0112-072011	Explosives, Volatiles
MW-112B	BMW-0112-072011	Explosives, Volatiles
MW-113A	AMW-0113-072011	Explosives, Volatiles
MW-113B	BMW-0113-072011	Explosives, Volatiles
MW-113D	DMW-0113-072011	Explosives, Volatiles
MW-114A	AMW-0114-072011	Explosives, Volatiles
MW-114B	BMW-0114-072011	Explosives, Volatiles
MW-114D	DMW-0114-072011	Explosives, Volatiles
MW-115A	AMW-0115-072011	Explosives, Volatiles

Table 1-1
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Wells	Sample IDs	Analyses
MW-115B	BMW-0115-072011	Explosives, Volatiles
MW-115D	DMW-0115-072011	Explosives, Volatiles
MW-116A	AMW-0116-072011	Explosives, Volatiles
MW-116B	BMW-0116-072011	Explosives, Volatiles
MW-116D	DMW-0116-072011	Explosives, Volatiles
MW-117A	AMW-0117-072011	Explosives, Volatiles
MW-117B	BMW-0117-072011	Explosives, Volatiles
MW-117D	DMW-0117-072011	Explosives, Volatiles
MW-118A	AMW-0118-072011	Explosives, Volatiles
MW-118B	BMW-0118-072011	Explosives, Volatiles
MW-119A	AMW-0119-072011	Explosives, Volatiles
MW-119B	BMW-0119-072011	Explosives, Volatiles
MW-120A	AMW-0120-072011	Explosives, Volatiles
MW-120B	BMW-0120-072011	Explosives, Volatiles
MW-120D	DMW-0120-072011	Explosives, Volatiles
MW-120E	EMW-0120-072011	Explosives, Volatiles
MW-121A	AMW-0121-072011	Explosives, Volatiles
MW-121B	BMW-0121-072011	Explosives, Volatiles
MW-121E	EMW-0121-072011	Explosives, Volatiles
MW-122A	AMW-0122-072011	Explosives, Volatiles
MW-122B	BMW-0122-072011	Explosives, Volatiles
MW-123A	AMW-0123-072011	Explosives, Volatiles
MW-123B	BMW-0123-072011	Explosives, Volatiles
MW-124A	AMW-0124-072011	Explosives, Volatiles
MW-124B	BMW-0124-072011	Explosives, Volatiles
MW-124D	DMW-0124-072011	Explosives, Volatiles
MW-125A	AMW-0125-072011	Explosives, Volatiles
MW-125B	BMW-0125-072011	Explosives, Volatiles
MW-125D	DMW-0125-072011	Explosives, Volatiles
MW-126A	AMW-0126-072011	Explosives, Volatiles
MW-126B	BMW-0126-072011	Explosives, Volatiles
MW-126D	DMW-0126-072011	Explosives, Volatiles
MW-127A	AMW-0127-072011	Explosives, Volatiles
MW-127B	BMW-0127-072011	Explosives, Volatiles
MW-127E	EMW-0127-072011	Explosives, Volatiles
MW-128A	AMW-0128-072011	Explosives
MW-128B	BMW-0128-072011	Explosives
MW-128D	DMW-0128-072011	Explosives
MW-129A	AMW-0129-072011	Explosives
MW-129B	BMW-0129-072011	Explosives
MW-129D	DMW-0129-072011	Explosives
MW-130A	AMW-0130-072011	Explosives
MW-130B	BMW-0130-072011	Explosives
MW-130D	DMW-0130-072011	Explosives
MW-131A	AMW-0131-072011	Explosives
MW-131B	BMW-0131-072011	Explosives
MW-131D	DMW-0131-072011	Explosives
MW-132A	AMW-0132-072011	Explosives
MW-132B	BMW-0132-072011	Explosives

Table 1-1
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Wells	Sample IDs	Analyses
MW-132D	DMW-0132-072011	Explosives
MW-133A	AMW-0133-072011	Volatiles
MW-133B	BMW-0133-072011	Volatiles
MW-133D	DMW-0133-072011	Volatiles
MW-134A	AMW-0134-072011	Volatiles
MW-134B	BMW-0134-072011	Volatiles
MW-134D	DMW-0134-072011	Volatiles
MW-135A	AMW-0135-072011	Volatiles
MW-135B	BMW-0135-072011	Volatiles
MW-135D	DMW-0135-072011	Volatiles
MW-136A	AMW-0136-072011	Volatiles
MW-136B	BMW-0136-072011	Volatiles
MW-136D	DMW-0136-072011	Volatiles
MW-136E	EMW-0136-072011	Volatiles
MW-137A	AMW-0137-072011	Volatiles
MW-137B	BMW-0137-072011	Volatiles
MW-137D	DMW-0137-072011	Volatiles
MW-137E	EMW-0137-072011	Volatiles
MW-138A	AMW-0138-072011	Volatiles
MW-138B	BMW-0138-072011	Volatiles
MW-139A	AMW-0139-072011	Volatiles
MW-139B	BMW-0139-072011	Volatiles
MW-140A	AMW-0140-072011	Volatiles
MW-140B	BMW-0140-072011	Volatiles
MW-140D	DMW-0140-072011	Volatiles
MW-140O	OMW-0140-072011	Volatiles
MW-141A	AMW-0141-072011	Explosives, Volatiles
MW-141B	BMW-0141-072011	Explosives, Volatiles
MW-141E	EMW-0141-072011	Explosives, Volatiles
MW-142A	AMW-0142-072011	Explosives, Volatiles
MW-142E	EMW-0142-072011	Explosives, Volatiles
MW-143B	BMW-0143-072011	Explosives, Volatiles
MW-144A	AMW-0144-072011	Explosives, Volatiles
MW-144E	EMW-0144-072011	Explosives, Volatiles
MW-145A	AMW-0145-072011	Explosives, Volatiles
MW-145E	EMW-0145-072011	Explosives, Volatiles
MW-146A	AMW-0146-072011	Explosives, Volatiles
MW-146B	BMW-0146-072011	Explosives, Volatiles
MW-147A	AMW-0147-072011	Explosives, Volatiles
MW-147B	BMW-0147-072011	Explosives, Volatiles
MW-147D	DMW-0147-072011	Explosives, Volatiles
MW-148B	BMW-0148-072011	Explosives, Volatiles
MW-149A	AMW-0149-072011	Explosives, Volatiles
MW-150A	AMW-0150-072011	Explosives, Volatiles
MW-150B	BMW-0150-072011	Explosives, Volatiles
MW-151A	AMW-0151-072011	Explosives, Volatiles
MW-151B	BMW-0151-072011	Explosives, Volatiles
MW-152B	BMW-0152-072011	Explosives, Volatiles
MW-153A	AMW-0153-072011	Explosives, Volatiles

Table 1-1
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Wells	Sample IDs	Analyses
MW-153B	BMW-0153-072011	Explosives, Volatiles
MW-153B*	BMW-0153-072011LF	Volatiles
MW-154A	AMW-0154-072011	Explosives, Volatiles
MW-154A*	AMW-0154-072011LF	Explosives, Volatiles
MW-154B	BMW-0154-072011	Explosives, Volatiles
MW-155A	AMW-0155-072011	Explosives, Volatiles
MW-155E	EMW-0155-072011	Explosives, Volatiles
MW-156A	AMW-0156-072011	Explosives, Volatiles
MW-156B	BMW-0156-072011	Explosives, Volatiles
MW-157A	AMW-0157-072011	Explosives, Volatiles
MW-157B	BMW-0157-072011	Explosives, Volatiles
MW-158A	AMW-0158-072011	Explosives, Volatiles
MW-158A*	AMW-0158-072011LF	Volatiles
MW-158B	BMW-0158-072011	Explosives, Volatiles
MW-158B*	BMW-0158-072011LF	Volatiles
MW-158D	DMW-0158-072011	Explosives, Volatiles
MW-158D*	DMW-0158-072011LF	Volatiles
MW-159A	AMW-0159-072011	Explosives, Volatiles
MW-159B	BMW-0159-072011	Explosives, Volatiles
MW-20A	AMW-020-072011	Explosives, Volatiles
MW-20B	BMW-020-072011	Explosives, Volatiles
MW-20C	CMW-020-072011	Explosives, Volatiles
MW-24A	AMW-024-072011	Explosives, Volatiles
MW-24B	BMW-024-072011	Explosives, Volatiles
MW-35A	AMW-035-072011	Explosives, Volatiles
MW-35B	BMW-035-072011	Explosives, Volatiles
MW-35D	DMW-035-072011	Explosives, Volatiles
MW-38A	AMW-038-072011	Explosives, Volatiles
MW-38D	DMW-038-072011	Explosives, Volatiles
MW-41A	AMW-041-072011	Explosives, Volatiles
MW-41B	BMW-041-072011	Explosives, Volatiles
MW-41D	DMW-041-072011	Explosives, Volatiles
MW-46A	AMW-046-072011	Explosives, Volatiles
MW-46B	BMW-046-072011	Explosives, Volatiles
MW-46D	DMW-046-072011	Explosives, Volatiles
MW-61A	AMW-061-072011	Explosives, Volatiles
MW-61B	BMW-061-072011	Explosives, Volatiles
MW-61D	DMW-061-072011	Explosives, Volatiles
MW-79A	AMW-079-072011	Volatiles
MW-79B	BMW-079-072011	Volatiles
MW-81A	AMW-081-072011	Explosives, Volatiles
MW-81B	BMW-081-072011	Explosives, Volatiles
MW-81D	DMW-081-072011	Explosives, Volatiles
MW-82A	AMW-082-072011	Explosives, Volatiles
MW-82B	BMW-082-072011	Explosives, Volatiles
MW-82D	DMW-082-072011	Explosives, Volatiles
MW-83A	AMW-083-072011	Explosives, Volatiles
MW-83B	BMW-083-072011	Explosives, Volatiles
MW-83D	DMW-083-072011	Explosives, Volatiles

Table 1-1
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Monitoring Wells	Sample IDs	Analyses
MW-84A	AMW-084-072011	Explosives, Volatiles
MW-84B	BMW-084-072011	Explosives, Volatiles
MW-84D	DMW-084-072011	Explosives, Volatiles
MW-85A	AMW-085-072011	Explosives, Volatiles
MW-85A*	AMW-085-072011LF	Explosives, Volatiles
MW-85B	BMW-085-072011	Explosives, Volatiles
MW-85B*	BMW-085-072011LF	Explosives, Volatiles
MW-85D	DMW-085-072011	Explosives, Volatiles
MW-85D*	DMW-085-072011LF	Volatiles
MW-86A	AMW-086-072011	Explosives, Volatiles
MW-86B	BMW-086-072011	Explosives, Volatiles
MW-86D	DMW-086-072011	Explosives, Volatiles
MW-88A	AMW-088-072011	Explosives, Volatiles
MW-88B	BMW-088-072011	Explosives, Volatiles
MW-88D	DMW-088-072011	Explosives, Volatiles
MW-90A	AMW-090-072011	Explosives, Volatiles
MW-90B	BMW-090-072011	Explosives, Volatiles
MW-90D	DMW-090-072011	Explosives, Volatiles
MW-91A	AMW-091-072011	Volatiles
MW-91B	BMW-091-072011	Volatiles
MW-91D	DMW-091-072011	Volatiles
MW-94A	AMW-094-072011	Explosives
MW-94B	BMW-094-072011	Explosives
MW-94D	DMW-094-072011	Explosives
MW-95A	AMW-095-072011	Explosives, Volatiles
MW-95B	BMW-095-072011	Explosives, Volatiles
MW-95D	DMW-095-072011	Explosives, Volatiles
MW-96A	AMW-096-072011	Explosives, Volatiles
MW-96B	BMW-096-072011	Explosives, Volatiles
MW-96D	DMW-096-072011	Explosives, Volatiles
MW-97A	AMW-097-072011	Explosives, Volatiles
MW-97B	BMW-097-072011	Explosives, Volatiles
MW-97D	DMW-097-072011	Explosives, Volatiles
MW-98A	AMW-098-072011	Explosives, Volatiles
MW-98B	BMW-098-072011	Explosives, Volatiles
MW-98D	DMW-098-072011	Explosives, Volatiles

Notes:

Volatiles	SW8260B	Volatile Organic Compounds by Capillary GC/MS
Explosives	SW8330	Nitroaromatics and Nitramines by HPLC

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Table 1-2
Sample Locations, Sample IDs, and Analyses
Third Quarter 2011 Surface Water Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Surface Water Locations	Sample IDs	Analyses
ARTESIAN	OART-072011	Explosives, Volatiles
SCW-04	SCW-004-072011	Explosives, Volatiles
SCW-05	SCW-005-072011	Explosives, Volatiles
SCW-06	SCW-006-072011	Explosives, Volatiles
SCW-06	SCW-206-072011	Explosives, Volatiles
SW-05	SW-005-072011	Explosives, Volatiles
SW-05	SW-205-072011	Explosives, Volatiles
SW-06	SW-006-072011	Explosives, Volatiles
SW-08	SW-008-072011	Explosives, Volatiles
SW-09	SW-009-072011	Explosives, Volatiles
SW-10	SW-010-072011	Explosives, Volatiles
SW-11	SW-011-072011	Explosives, Volatiles
SW-12	SW-012-072011	Explosives, Volatiles
SW-13	SW-013-072011	Explosives, Volatiles

Notes:

Volatiles	SW8260B	Volatile Organic Compounds by Capillary GC/MS
Explosives	SW8330	Nitroaromatics and Nitramines by HPLC

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Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
Field Samples								
BMW-0116-072011			7/12/2011	7/14/2011	200-5990-2	5990	•	•
DMW-0116-072011			7/12/2011	7/14/2011	200-5990-3	5990	•	•
AMW-0116-072011			7/12/2011	7/14/2011	200-5990-4	5990	•	•
AMW-0158-072011			7/12/2011	7/14/2011	200-5990-5	5990	•	•
BMW-0158-072011			7/12/2011	7/14/2011	200-5990-6	5990	•	•
DMW-0158-072011			7/12/2011	7/14/2011	200-5990-7	5990	•	•
AMW-0158-072011LF			7/12/2011	7/14/2011	200-5990-8	5990		•
BMW-0158-072011LF			7/12/2011	7/14/2011	200-5990-9	5990		•
DMW-0158-072011LF			7/12/2011	7/14/2011	200-5990-10	5990		•
AMW-0100-072011LF			7/13/2011	7/14/2011	200-5990-11	5990	•	•
BMW-0100-072011LF			7/13/2011	7/14/2011	200-5990-12	5990	•	•
		BMW-2100-072011LF	7/13/2011	7/14/2011	200-5990-13	5990	•	•
DMW-0100-072011LF			7/13/2011	7/14/2011	200-5990-14	5990	•	•
AMW-085-072011LF			7/13/2011	7/14/2011	200-5990-15	5990	•	•
BMW-085-072011LF			7/13/2011	7/14/2011	200-5990-16	5990	•	•
DMW-085-072011LF			7/13/2011	7/14/2011	200-5990-17	5990		•
AMW-0154-072011			7/18/2011	7/20/2011	200-6110-1	6110	•	•
BMW-0154-072011			7/18/2011	7/20/2011	200-6110-2	6110	•	•
AMW-0155-072011			7/18/2011	7/20/2011	200-6110-3	6110	•	•
		AMW-2155-072011	7/18/2011	7/20/2011	200-6110-4	6110	•	•
EMW-0155-072011	EMW-0155-072011		7/18/2011	7/20/2011	200-6110-5	6110	•	•
AMW-0157-072011			7/18/2011	7/20/2011	200-6110-6	6110	•	•
BMW-0157-072011			7/18/2011	7/20/2011	200-6110-7	6110	•	•
AMW-0153-072011			7/18/2011	7/20/2011	200-6110-8	6110	•	•
BMW-0153-072011			7/18/2011	7/20/2011	200-6110-9	6110	•	•
BMW-0152-072011			7/18/2011	7/20/2011	200-6110-10	6110	•	•
AMW-0151-072011			7/18/2011	7/20/2011	200-6110-11	6110	•	•
BMW-0151-072011			7/18/2011	7/20/2011	200-6110-12	6110	•	•
BMW-0148-072011			7/18/2011	7/20/2011	200-6110-13	6110	•	•
		BMW-2148-072011	7/18/2011	7/20/2011	200-6110-14	6110	•	•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
BMW-0143-072011			7/18/2011	7/20/2011	200-6110-15	6110	•	•
AMW-0149-072011			7/18/2011	7/20/2011	200-6110-16	6110	•	•
AMW-0150-072011			7/18/2011	7/20/2011	200-6110-17	6110	•	•
BMW-0150-072011			7/18/2011	7/20/2011	200-6110-18	6110	•	•
AMW-0156-072011			7/19/2011	7/20/2011	200-6110-25	6110	•	•
BMW-0156-072011			7/19/2011	7/20/2011	200-6110-26	6110	•	•
		BMW-2156-072011	7/19/2011	7/20/2011	200-6110-27	6110	•	•
AMW-0145-072011			7/19/2011	7/20/2011	200-6110-28	6110	•	•
EMW-0145-072011			7/19/2011	7/20/2011	200-6110-29	6110	•	•
AMW-0144-072011			7/19/2011	7/20/2011	200-6110-30	6110	•	•
EMW-0144-072011			7/19/2011	7/20/2011	200-6110-31	6110	•	•
		EMW-2144-072011	7/19/2011	7/20/2011	200-6110-32	6110	•	•
AMW-0141-072011			7/19/2011	7/20/2011	200-6110-33	6110	•	•
BMW-0141-072011			7/19/2011	7/20/2011	200-6110-34	6110	•	•
EMW-0141-072011			7/19/2011	7/20/2011	200-6110-35	6110	•	•
AMW-0142-072011			7/19/2011	7/20/2011	200-6110-36	6110	•	•
AMW-0147-072011			7/19/2011	7/20/2011	200-6110-20	6110	•	•
BMW-0147-072011			7/19/2011	7/20/2011	200-6110-21	6110	•	•
DMW-0147-072011			7/19/2011	7/20/2011	200-6110-22	6110	•	•
AMW-0146-072011			7/19/2011	7/20/2011	200-6110-23	6110	•	•
BMW-0146-072011			7/19/2011	7/20/2011	200-6110-24	6110	•	•
AMW-035-072011			7/25/2011	7/27/2011	200-6214-2	6214	•	•
BMW-035-072011			7/25/2011	7/27/2011	200-6214-3	6214	•	•
		BMW-235-072011	7/25/2011	7/27/2011	200-6214-4	6214	•	•
DMW-035-072011			7/25/2011	7/27/2011	200-6214-5	6214	•	•
AMW-0130-072011			7/25/2011	7/27/2011	200-6214-6	6214	•	
BMW-0130-072011			7/25/2011	7/27/2011	200-6214-7	6214	•	
DMW-0130-072011			7/25/2011	7/27/2011	200-6214-8	6214	•	
AMW-0129-072011			7/25/2011	7/27/2011	200-6214-9	6214	•	
BMW-0129-072011	BMW-0129-072011		7/25/2011	7/27/2011	200-6214-10	6214	•	
DMW-0129-072011			7/25/2011	7/27/2011	200-6214-11	6214	•	

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
AMW-0131-072011			7/25/2011	7/27/2011	200-6214-12	6214	•	
BMW-0131-072011			7/25/2011	7/27/2011	200-6214-13	6214	•	
DMW-0131-072011			7/25/2011	7/27/2011	200-6214-14	6214	•	
AMW-0118-072011			7/25/2011	7/27/2011	200-6214-15	6214	•	•
		AMW-2118-072011	7/25/2011	7/27/2011	200-6214-16	6214	•	
BMW-0118-072011	BMW-0118-072011		7/25/2011	7/27/2011	200-6214-17	6214	•	•
AMW-0132-072011			7/25/2011	7/27/2011	200-6214-18	6214	•	
BMW-0132-072011			7/25/2011	7/27/2011	200-6214-19	6214	•	
DMW-0132-072011			7/25/2011	7/27/2011	200-6214-20	6214	•	
AMW-0128-072011			7/25/2011	7/27/2011	200-6214-21	6214	•	
BMW-0128-072011			7/25/2011	7/27/2011	200-6214-22	6214	•	
DMW-0128-072011			7/25/2011	7/27/2011	200-6214-23	6214	•	
AMW-0117-072011			7/27/2011	7/29/2011	200-6272-1	6272	•	•
BMW-0117-072011			7/27/2011	7/29/2011	200-6272-2	6272	•	•
DMW-0117-072011			7/27/2011	7/29/2011	200-6272-3	6272	•	•
AMW-0140-072011			7/27/2011	7/29/2011	200-6272-4	6272		•
BMW-0140-072011			7/27/2011	7/29/2011	200-6272-5	6272		•
DMW-0140-072011			7/27/2011	7/29/2011	200-6272-6	6272		•
OMW-0140-072011			7/27/2011	7/29/2011	200-6272-7	6272		•
AMW-0110-072011			7/28/2011	7/29/2011	200-6272-9	6272	•	•
BMW-0110-072011			7/28/2011	7/29/2011	200-6272-10	6272	•	•
DMW-0110-072011			7/28/2011	7/29/2011	200-6272-11	6272	•	•
AMW-0108-072011			7/28/2011	7/29/2011	200-6272-12	6272	•	•
BMW-0108-072011			7/28/2011	7/29/2011	200-6272-13	6272	•	•
DMW-0108-072011			7/28/2011	7/29/2011	200-6272-14	6272	•	•
AMW-0107-072011			7/28/2011	7/29/2011	200-6272-15	6272	•	•
BMW-0107-072011			7/28/2011	7/29/2011	200-6272-16	6272	•	•
DMW-0107-072011			7/28/2011	7/29/2011	200-6272-17	6272	•	•
AMW-0106-072011			7/28/2011	7/29/2011	200-6272-18	6272	•	•
BMW-0106-072011			7/28/2011	7/29/2011	200-6272-19	6272	•	•
		BMW-2106-072011	7/28/2011	7/29/2011	200-6272-20	6272	•	•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
DMW-0106-072011			7/28/2011	7/29/2011	200-6272-21	6272	•	•
AMW-0159-072011			7/28/2011	7/29/2011	200-6272-22	6272	•	•
BMW-0159-072011			7/28/2011	7/29/2011	200-6272-23	6272	•	•
AMW-041-072011			7/28/2011	7/29/2011	200-6272-24	6272	•	•
BMW-041-072011			7/28/2011	7/29/2011	200-6272-25	6272	•	•
DMW-041-072011			7/28/2011	7/29/2011	200-6272-26	6272	•	•
AMW-0102-072011			7/28/2011	7/29/2011	200-6272-27	6272	•	•
BMW-0102-072011			7/28/2011	7/29/2011	200-6272-28	6272	•	•
		BMW-2102-072011	7/28/2011	7/29/2011	200-6272-29	6272	•	•
DMW-0102-072011			7/28/2011	7/29/2011	200-6272-30	6272	•	•
AMW-0103-072011			7/28/2011	7/29/2011	200-6272-31	6272	•	•
BMW-0103-072011			7/28/2011	7/29/2011	200-6272-32	6272	•	•
DMW-0103-072011			7/28/2011	7/29/2011	200-6272-33	6272	•	•
AMW-086-072011			8/2/2011	8/4/2011	200-6367-2	6367	•	•
BMW-086-072011			8/2/2011	8/4/2011	200-6367-3	6367	•	•
		BMW-286-072011	8/2/2011	8/4/2011	200-6367-4	6367	•	•
DMW-086-072011			8/2/2011	8/4/2011	200-6367-5	6367	•	•
AMW-088-072011			8/2/2011	8/4/2011	200-6367-6	6367	•	•
BMW-088-072011			8/2/2011	8/4/2011	200-6367-7	6367	•	•
DMW-088-072011			8/2/2011	8/4/2011	200-6367-8	6367	•	•
AMW-038-072011			8/2/2011	8/4/2011	200-6367-9	6367	•	•
		AMW-238-072011	8/2/2011	8/4/2011	200-6367-10	6367	•	•
DMW-038-072011	DMW-038-072011		8/2/2011	8/4/2011	200-6367-11	6367	•	•
AMW-0115-072011			8/2/2011	8/4/2011	200-6367-12	6367	•	•
BMW-0115-072011			8/2/2011	8/4/2011	200-6367-13	6367	•	•
DMW-0115-072011			8/2/2011	8/4/2011	200-6367-14	6367	•	•
AMW-046-072011			8/2/2011	8/4/2011	200-6367-15	6367	•	•
		AMW-246-072011	8/2/2011	8/4/2011	200-6367-16	6367	•	•
BMW-046-072011	BMW-046-072011		8/2/2011	8/4/2011	200-6367-17	6367	•	•
DMW-046-072011			8/2/2011	8/4/2011	200-6367-18	6367	•	•
AMW-0112-072011			8/2/2011	8/4/2011	200-6367-19	6367	•	•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
BMW-0112-072011			8/2/2011	8/4/2011	200-6367-20	6367	•	•
AMW-0113-072011			8/2/2011	8/4/2011	200-6367-21	6367	•	•
BMW-0113-072011			8/2/2011	8/4/2011	200-6367-22	6367	•	•
DMW-0113-072011			8/2/2011	8/4/2011	200-6367-23	6367	•	•
AMW-0100-072011			8/3/2011	8/4/2011	200-6369-1	6369	•	•
BMW-0100-072011			8/3/2011	8/4/2011	200-6369-2	6369	•	•
		BMW-2100-072011	8/3/2011	8/4/2011	200-6369-3	6369	•	•
DMW-0100-072011			8/3/2011	8/4/2011	200-6369-4	6369	•	•
AMW-085-072011			8/3/2011	8/4/2011	200-6369-5	6369	•	•
BMW-085-072011			8/3/2011	8/4/2011	200-6369-6	6369	•	•
DMW-085-072011			8/3/2011	8/4/2011	200-6369-7	6369	•	•
AMW-098-072011			8/3/2011	8/4/2011	200-6369-8	6369	•	•
		AMW-298-072011	8/3/2011	8/4/2011	200-6369-9	6369	•	•
BMW-098-072011	BMW-098-072011		8/3/2011	8/4/2011	200-6369-10	6369	•	•
DMW-098-072011			8/3/2011	8/4/2011	200-6369-11	6369	•	•
AMW-084-072011			8/3/2011	8/4/2011	200-6369-12	6369	•	•
BMW-084-072011			8/3/2011	8/4/2011	200-6369-13	6369	•	•
DMW-084-072011			8/3/2011	8/4/2011	200-6369-14	6369	•	•
AMW-083-072011			8/3/2011	8/4/2011	200-6369-15	6369	•	•
BMW-083-072011			8/3/2011	8/4/2011	200-6369-16	6369	•	•
DMW-083-072011			8/3/2011	8/4/2011	200-6369-17	6369	•	•
AMW-097-072011			8/3/2011	8/4/2011	200-6369-18	6369	•	•
BMW-097-072011			8/3/2011	8/4/2011	200-6369-19	6369	•	•
DMW-097-072011			8/3/2011	8/4/2011	200-6369-20	6369	•	•
AMW-0105-072011			8/10/2011	8/11/2011	200-6496-21	6496	•	
AMW-0105-072011			8/24/2011	8/26/2011	200-6723-27	6723-2		•
		AMW-2105-072011	8/10/2011	8/11/2011	200-6496-22	6496	•	
		AMW-2105-072011	8/24/2011	8/26/2011	200-6723-28	6723-2		•
BMW-0105-072011	BMW-0105-072011		8/10/2011	8/11/2011	200-6496-23	6496	•	
BMW-0105-072011	BMW-0105-072011		8/24/2011	8/26/2011	200-6723-29	6723-3		•
OMW-0105-072011			8/10/2011	8/11/2011	200-6496-24	6496	•	

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
OMW-0105-072011			8/24/2011	8/26/2011	200-6723-30	6723-3		•
AMW-024-072011			8/10/2011	8/11/2011	200-6496-25	6496	•	
AMW-024-072011			8/24/2011	8/26/2011	200-6723-10	6723-1		•
		AMW-224-072011	8/10/2011	8/11/2011	200-6496-26	6496	•	
		AMW-224-072011	8/24/2011	8/26/2011	200-6723-11	6723-1		•
BMW-024-072011	BMW-024-072011		8/10/2011	8/11/2011	200-6496-27	6496	•	
BMW-024-072011	BMW-024-072011		8/24/2011	8/26/2011	200-6723-12	6723-1		•
EMW-0142-072011			8/10/2011	8/11/2011	200-6496-28	6496	•	
EMW-0142-072011			8/24/2011	8/26/2011	200-6723-13	6723-1		•
AMW-0104-072011			8/10/2011	8/11/2011	200-6496-29	6496	•	
AMW-0104-072011			8/24/2011	8/26/2011	200-6723-14	6723-1		•
BMW-0104-072011			8/10/2011	8/11/2011	200-6496-30	6496	•	
BMW-0104-072011			8/24/2011	8/26/2011	200-6723-15	6723-1		•
DMW-0104-072011			8/10/2011	8/11/2011	200-6496-31	6496	•	
DMW-0104-072011			8/24/2011	8/26/2011	200-6723-16	6723-1		•
OMW-0104-072011			8/10/2011	8/11/2011	200-6496-32	6496	•	
OMW-0104-072011			8/24/2011	8/26/2011	200-6723-17	6723-1		•
AMW-0111-072011			8/10/2011	8/11/2011	200-6496-33	6496	•	
AMW-0111-072011			8/24/2011	8/26/2011	200-6723-18	6723-1		•
BMW-0111-072011			8/10/2011	8/11/2011	200-6496-34	6496	•	
BMW-0111-072011			8/24/2011	8/26/2011	200-6723-19	6723-1		•
		BMW-2111-072011	8/24/2011	8/26/2011	200-6723-20	6723-1		•
OMW-0111-072011			8/10/2011	8/11/2011	200-6496-35	6496	•	
OMW-0111-072011			8/24/2011	8/26/2011	200-6723-21	6723-2		•
AMW-0109-072011			8/10/2011	8/11/2011	200-6496-36	6496	•	
AMW-0109-072011			8/24/2011	8/26/2011	200-6723-22	6723-2		•
		AMW-2109-072011	8/10/2011	8/11/2011	200-6496-37	6496	•	
		AMW-2109-072011	8/24/2011	8/26/2011	200-6723-23	6723-2		•
BMW-0109-072011	BMW-0109-072011		8/10/2011	8/11/2011	200-6496-38	6496	•	
BMW-0109-072011	BMW-0109-072011		8/24/2011	8/26/2011	200-6723-24	6723-2		•
		BMW-2109-072011	8/24/2011	8/26/2011	200-6723-25	6723-2		•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
OMW-0109-072011			8/10/2011	8/11/2011	200-6496-39	6496	•	
OMW-0109-072011			8/24/2011	8/26/2011	200-6723-26	6723-2		•
AMW-094-072011			8/11/2011	8/12/2011	200-6514-1	6514	•	
BMW-094-072011			8/11/2011	8/12/2011	200-6514-2	6514	•	
DMW-094-072011			8/11/2011	8/12/2011	200-6514-3	6514	•	
AMW-091-072011			8/11/2011	8/12/2011	200-6514-4	6514		•
BMW-091-072011			8/11/2011	8/12/2011	200-6514-5	6514		•
DMW-091-072011			8/11/2011	8/12/2011	200-6514-6	6514		•
AMW-090-072011			8/11/2011	8/12/2011	200-6514-7	6514	•	•
BMW-090-072011			8/11/2011	8/12/2011	200-6514-8	6514	•	•
DMW-090-072011			8/11/2011	8/12/2011	200-6514-9	6514	•	•
AMW-079-072011			8/11/2011	8/12/2011	200-6514-10	6514		•
BMW-079-072011			8/11/2011	8/12/2011	200-6514-11	6514		•
AMW-0122-072011			8/22/2011	8/24/2011	200-6678-2	6678	•	•
		AMW-2122-072011	8/22/2011	8/24/2011	200-6678-3	6678	•	
BMW-0122-072011	BMW-0122-072011		8/22/2011	8/24/2011	200-6678-4	6678	•	•
AMW-0119-072011			8/22/2011	8/24/2011	200-6678-5	6678	•	•
BMW-0119-072011			8/22/2011	8/24/2011	200-6678-6	6678	•	•
AMW-0123-072011			8/22/2011	8/24/2011	200-6678-7	6678	•	•
BMW-0123-072011			8/22/2011	8/24/2011	200-6678-8	6678	•	•
AMW-0120-072011			8/22/2011	8/24/2011	200-6678-9	6678	•	•
BMW-0120-072011			8/22/2011	8/24/2011	200-6678-10	6678	•	•
DMW-0120-072011			8/22/2011	8/24/2011	200-6678-11	6678	•	•
EMW-0120-072011			8/22/2011	8/24/2011	200-6678-12	6678	•	•
AMW-0121-072011			8/23/2011	8/24/2011	200-6678-13	6678	•	•
BMW-0121-072011			8/23/2011	8/24/2011	200-6678-14	6678	•	•
EMW-0121-072011			8/23/2011	8/24/2011	200-6678-15	6678	•	•
AMW-0125-072011			8/23/2011	8/24/2011	200-6678-16	6678	•	•
BMW-0125-072011			8/23/2011	8/24/2011	200-6678-17	6678	•	•
		BMW-2125-072011	8/23/2011	8/24/2011	200-6678-18	6678	•	•
DMW-0125-072011			8/23/2011	8/24/2011	200-6678-19	6678	•	•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
AMW-0124-072011			8/23/2011	8/24/2011	200-6678-20	6678	•	•
BMW-0124-072011			8/23/2011	8/24/2011	200-6678-21	6678	•	•
		BMW-2124-072011	8/23/2011	8/24/2011	200-6678-22	6678	•	•
DMW-0124-072011			8/23/2011	8/24/2011	200-6678-23	6678	•	•
AMW-0126-072011			8/23/2011	8/24/2011	200-6678-24	6678	•	•
BMW-0126-072011			8/23/2011	8/24/2011	200-6678-25	6678	•	•
DMW-0126-072011			8/23/2011	8/24/2011	200-6678-26	6678	•	•
AMW-0127-072011			8/23/2011	8/24/2011	200-6678-27	6678	•	•
BMW-0127-072011			8/23/2011	8/24/2011	200-6678-28	6678	•	•
EMW-0127-072011			8/23/2011	8/24/2011	200-6678-29	6678	•	•
AMW-0134-072011			8/23/2011	8/24/2011	200-6678-30	6678		•
BMW-0134-072011			8/23/2011	8/24/2011	200-6678-31	6678		•
DMW-0134-072011	DMW-0134-072011		8/23/2011	8/24/2011	200-6678-32	6678		•
AMW-0135-072011			8/23/2011	8/24/2011	200-6678-33	6678		•
BMW-0135-072011			8/23/2011	8/24/2011	200-6678-34	6678		•
DMW-0135-072011			8/23/2011	8/24/2011	200-6678-35	6678		•
AMW-0133-072011			8/23/2011	8/24/2011	200-6678-36	6678		•
BMW-0133-072011	BMW-0133-072011		8/23/2011	8/24/2011	200-6678-37	6678		•
DMW-0133-072011			8/23/2011	8/24/2011	200-6678-38	6678		•
AMW-0136-072011			8/23/2011	8/24/2011	200-6678-39	6678		•
BMW-0136-072011			8/23/2011	8/24/2011	200-6678-40	6678		•
DMW-0136-072011			8/23/2011	8/24/2011	200-6678-41	6678		•
EMW-0136-072011			8/23/2011	8/24/2011	200-6678-42	6678		•
AMW-0137-072011			8/24/2011	8/26/2011	200-6723-1	6723-1		•
BMW-0137-072011			8/24/2011	8/26/2011	200-6723-3	6723-1		•
DMW-0137-072011			8/24/2011	8/26/2011	200-6723-4	6723-1		•
EMW-0137-072011			8/24/2011	8/26/2011	200-6723-5	6723-1		•
AMW-0139-072011			8/24/2011	8/26/2011	200-6723-6	6723-1		•
BMW-0139-072011			8/24/2011	8/26/2011	200-6723-7	6723-1		•
AMW-0138-072011			8/24/2011	8/26/2011	200-6723-8	6723-1		•
BMW-0138-072011			8/24/2011	8/26/2011	200-6723-9	6723-1		•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
BMW-0153-072011LF			8/25/2011	8/26/2011	200-6723-31	6723-3		•
AMW-0154-072011LF			8/25/2011	8/26/2011	200-6723-32	6723-3	•	•
AMW-096-072011			8/25/2011	8/26/2011	200-6723-34	6723-2	•	•
BMW-096-072011			8/25/2011	8/26/2011	200-6723-35	6723-2	•	•
DMW-096-072011			8/25/2011	8/26/2011	200-6723-36	6723-2	•	•
AMW-082-072011			8/25/2011	8/26/2011	200-6723-37	6723-2	•	•
BMW-082-072011			8/25/2011	8/26/2011	200-6723-38	6723-2	•	•
DMW-082-072011			8/25/2011	8/26/2011	200-6723-39	6723-2	•	•
AMW-095-072011			8/25/2011	8/26/2011	200-6723-40	6723-2	•	•
BMW-095-072011			8/25/2011	8/26/2011	200-6723-41	6723-2	•	•
DMW-095-072011			8/25/2011	8/26/2011	200-6723-42	6723-2	•	•
AMW-020-072011			8/25/2011	8/26/2011	200-6723-43	6723-2	•	•
BMW-020-072011			8/25/2011	8/26/2011	200-6723-44	6723-3	•	•
CMW-020-072011			8/25/2011	8/26/2011	200-6723-45	6723-3	•	•
AMW-081-072011			8/25/2011	8/26/2011	200-6723-46	6723-3	•	•
BMW-081-072011			8/25/2011	8/26/2011	200-6723-47	6723-3	•	•
DMW-081-072011			8/25/2011	8/26/2011	200-6723-48	6723-3	•	•
AMW-061-072011			8/25/2011	8/26/2011	200-6723-49	6723-3	•	•
BMW-061-072011			8/25/2011	8/26/2011	200-6723-50	6723-3	•	•
DMW-061-072011			8/25/2011	8/26/2011	200-6723-51	6723-3	•	•
AMW-0101-072011			8/25/2011	8/26/2011	200-6723-52	6723-3	•	•
BMW-0101-072011			8/25/2011	8/26/2011	200-6723-53	6723-3	•	•
		BMW-2101-072011	8/25/2011	8/26/2011	200-6723-54	6723-3	•	•
DMW-0101-072011			8/25/2011	8/26/2011	200-6723-55	6723-3	•	•
AMW-0114-072011			8/29/2011	8/30/2011	200-6760-2	6760	•	•
BMW-0114-072011			8/29/2011	8/30/2011	200-6760-3	6760	•	•
DMW-0114-072011			8/29/2011	8/30/2011	200-6760-4	6760	•	•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
Equipment Blanks								
RIN-2153-072011			8/25/2011	8/26/2011	200-6723-33	6723-3	•	•
RIN-R11275/P11924-072011			7/5/2011	7/6/2011	200-5870-2	5870	•	•
RIN-R111111/P12061-072011			7/5/2011	7/6/2011	200-5870-3	5870	•	•
RIN-R101570-072011			7/5/2011	7/6/2011	200-5870-4	5870	•	•
RIN-2153-072011			8/25/2011	8/26/2011	200-6723-33	6723-3	•	•
Trip Blanks								
TRB-R111111/P12061-072011			7/5/2011	7/14/2011	200-5870-1	5870		•
TRB-2116-072011			7/12/2011	7/14/2011	200-5990-1	5990		•
TRB-AMW-0154-072011			7/18/2011	7/20/2011	200-6110-19	6110		•
TRB-235-072011			7/25/2011	7/27/2011	200-6214-1	6214		•
TRB-2117-072011			7/27/2011	7/29/2011	200-6272-8	6272		•
TRB-286-072011			8/2/2011	8/4/2011	200-6367-1	6367		•
TRB-294-072011			8/11/2011	8/12/2011	200-6514-12	6514		•
TRB-2122-072011			8/22/2011	8/24/2011	200-6678-1	6678		•
TRB-2137-072011			8/24/2011	8/26/2011	200-6723-2	6723-1		•
TRB-2153-072011			8/25/2011	8/26/2011	200-6723-56	6723-3		•
TRB-2114-072011			8/29/2011	8/30/2011	200-6760-1	6760		•

SW8260B Volatile Organic Compounds by Capillary GC/MS
SW8330 Nitroaromatics and Nitramines by HPLC

Table 2-2
Sample Collection Summary
Third Quarter 2011 Surface Water Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	Volatiles
Field Samples								
SCW-004-072011			7/13/2011	7/15/2011	200-6015-1	6015	•	•
SCW-005-072011			7/13/2011	7/15/2011	200-6015-2	6015	•	•
SCW-006-072011			7/13/2011	7/15/2011	200-6015-3	6015	•	•
		SCW-206-072011	7/13/2011	7/15/2011	200-6015-4	6015	•	•
SW-012-072011			7/13/2011	7/15/2011	200-6015-6	6015	•	•
SW-011-072011			7/13/2011	7/15/2011	200-6015-7	6015	•	•
SW-009-072011			7/13/2011	7/15/2011	200-6015-8	6015	•	•
SW-008-072011			7/13/2011	7/15/2011	200-6015-9	6015	•	•
SW-006-072011			7/13/2011	7/15/2011	200-6015-10	6015	•	•
OART-072011			7/13/2011	7/15/2011	200-6015-11	6015	•	•
SW-005-072011	SW-005-072011		7/13/2011	7/15/2011	200-6015-12	6015	•	•
		SW-205-072011	7/13/2011	7/15/2011	200-6015-13	6015	•	•
SW-010-072011			7/13/2011	7/15/2011	200-6015-14	6015	•	•
SW-013-072011			7/13/2011	7/15/2011	200-6015-15	6015	•	•
Trip Blanks								
TRB-204-072011			7/13/2011	7/15/2011	200-6015-5	6015		•

Notes:

Volatiles SW8260B Volatile Organic Compounds by Capillary GC/MS

Explosives SW8330 Nitroaromatics and Nitramines by HPLC

• = Requested for the indicated analyses

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Table 3-1
Data Quality Evaluation Results - Monitoring Well
Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	%REC	BLK	C_RPD	IS_Surr	Comments	Final Result
AMW-0100-072011	8/3/2011	6369	200-6369-1	Explosives	2,4,6-Trinitrotoluene	µg/L	0.038	J			X		Column RPD	0.038 J
AMW-0100-072011	8/3/2011	6369	200-6369-1	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.083	J			X		Column RPD	0.083 J
AMW-0100-072011LF	7/13/2011	5990	200-5990-11	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.14	J			X		Column RPD	0.14 J
AMW-0103-072011	7/28/2011	6272	200-6272-31	Explosives	2,4,6-Trinitrotoluene	µg/L	0.20	J			X		Column RPD	0.20 J
AMW-0103-072011	7/28/2011	6272	200-6272-31	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.057	J			X		Column RPD	0.057 J
AMW-0109-072011	8/10/2011	6496	200-6496-36	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.12	J			X		Column RPD	0.12 J
AMW-0112-072011	8/2/2011	6367	200-6367-19	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.15	J			X		Column RPD	0.15 J
AMW-0118-072011	7/25/2011	6214	200-6214-15	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.12	J			X		Column RPD	0.12 J
AMW-0120-072011	8/22/2011	6678	200-6678-9	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.090	J			X		Column RPD	0.090 J
AMW-0122-072011	8/22/2011	6678	200-6678-2	Explosives	1,3,5-Trinitrobenzene	µg/L	0.041	J			X		Column RPD	0.041 J
AMW-0122-072011	8/22/2011	6678	200-6678-2	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.21	J			X		Column RPD	0.21 J
AMW-0126-072011	8/23/2011	6678	200-6678-24	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.053	J			X		Column RPD	0.053 J
AMW-0127-072011	8/23/2011	6678	200-6678-27	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.33	J			X		Column RPD	0.33 J
AMW-0141-072011	7/19/2011	6110	200-6110-33	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.071	J			X		Column RPD	0.071 J
AMW-0142-072011	7/19/2011	6110	200-6110-36	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.12	J			X		Column RPD	0.12 J
AMW-0145-072011	7/19/2011	6110	200-6110-28	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.10	J			X		Column RPD	0.10 J
AMW-0149-072011	7/18/2011	6110	200-6110-16	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.43	J			X		Column RPD	0.43 J
AMW-0153-072011	7/18/2011	6110	200-6110-8	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.094	J			X		Column RPD	0.094 J
AMW-0155-072011	7/18/2011	6110	200-6110-3	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.052	J			X		Column RPD	0.052 J
AMW-0155-072011	7/18/2011	6110	200-6110-3	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.056	J			X		Column RPD	0.056 J
AMW-0159-072011	7/28/2011	6272	200-6272-22	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.058	J			X		Column RPD	0.058 J
AMW-035-072011	7/25/2011	6214	200-6214-2	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.057	J			X		Column RPD	0.057 J
AMW-038-072011	8/2/2011	6367	200-6367-9	Explosives	1,3,5-Trinitrobenzene	µg/L	0.11	J			X		Column RPD	0.11 J
AMW-038-072011	8/2/2011	6367	200-6367-9	Explosives	2,4,6-Trinitrotoluene	µg/L	0.46	J			X		Column RPD	0.46 J
AMW-038-072011	8/2/2011	6367	200-6367-9	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.18	J			X		Column RPD	0.18 J
AMW-038-072011	8/2/2011	6367	200-6367-9	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	1.0	J			X		Column RPD	1.0 J
AMW-084-072011	8/3/2011	6369	200-6369-12	Explosives	2,4,6-Trinitrotoluene	µg/L	0.027	J			X		Column RPD	0.027 J
AMW-086-072011	8/2/2011	6367	200-6367-2	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.47	J			X		Column RPD	0.47 J
AMW-088-072011	8/2/2011	6367	200-6367-6	Volatiles	trans-1,2-Dichloroethene	µg/L	0.32	U		X			Lab Blank	1.0 U
AMW-088-072011	8/2/2011	6367	200-6367-6	Volatiles	Trichloroethene	µg/L	0.30	U		X			Lab Blank	1.0 U
AMW-090-072011	8/11/2011	6514	200-6514-7	Explosives	2,4,6-Trinitrotoluene	µg/L	0.12	J			X		Column RPD	0.12 J
AMW-090-072011	8/11/2011	6514	200-6514-7	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.10	J			X		Column RPD	0.10 J
AMW-2155-072011	7/18/2011	6110	200-6110-4	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.044	J			X		Column RPD	0.044 J
AMW-2155-072011	7/18/2011	6110	200-6110-4	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.046	J			X		Column RPD	0.046 J

Table 3-1
Data Quality Evaluation Results - Monitoring Well
Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	%REC	BLK	C_RPD	IS_Surr	Comments	Final Result
AMW-238-072011	8/2/2011	6367	200-6367-10	Explosives	1,3,5-Trinitrobenzene	µg/L	0.054	J			X		Column RPD	0.054 J
AMW-238-072011	8/2/2011	6367	200-6367-10	Explosives	2,4,6-Trinitrotoluene	µg/L	0.28	J			X		Column RPD	0.28 J
AMW-238-072011	8/2/2011	6367	200-6367-10	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.15	J			X		Column RPD	0.15 J
AMW-238-072011	8/2/2011	6367	200-6367-10	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.39	J			X		Column RPD	0.39 J
BMW-0100-072011	8/3/2011	6369	200-6369-2	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.076	J			X		Column RPD	0.076 J
BMW-0102-072011	7/28/2011	6272	200-6272-28	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.052	J			X		Column RPD	0.052 J
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	1,3,5-Trinitrobenzene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	2,4,6-Trinitrotoluene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	2,4-Dinitrotoluene	µg/L	0.14 UJ	UJ	X				MS - low	0.14 UJ
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0105-072011	8/10/2011	6496	200-6496-23	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0109-072011	8/10/2011	6496	200-6496-38	Explosives	1,3,5-Trinitrobenzene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0109-072011	8/10/2011	6496	200-6496-38	Explosives	2,4,6-Trinitrotoluene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0109-072011	8/10/2011	6496	200-6496-38	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.11 UJ	UJ	X				MS - low	0.11 UJ
BMW-0109-072011	8/10/2011	6496	200-6496-38	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.11 J	J	X				MS - low	0.11 J
BMW-0109-072011	8/10/2011	6496	200-6496-38	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	1.5	J	X				MS - low	1.5 J
BMW-0113-072011	8/2/2011	6367	200-6367-22	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.34	J			X		Column RPD	0.34 J
BMW-0113-072011	8/2/2011	6367	200-6367-22	Volatiles	trans-1,2-Dichloroethene	µg/L	0.43	U		X			Lab Blank	1.0 U
BMW-0113-072011	8/2/2011	6367	200-6367-22	Volatiles	Trichloroethene	µg/L	0.29	U		X			Lab Blank	1.0 U
BMW-0113-072011	8/2/2011	6367	200-6367-22	Volatiles	Vinyl Chloride	µg/L	0.33	U		X			Lab Blank	1.0 U
BMW-0115-072011	8/2/2011	6367	200-6367-13	Explosives	2,4,6-Trinitrotoluene	µg/L	0.028	J			X		Column RPD	0.028 J
BMW-0120-072011	8/22/2011	6678	200-6678-10	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.050	J			X		Column RPD	0.050 J
BMW-0120-072011	8/22/2011	6678	200-6678-10	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	2.1	J			X		Column RPD	2.1 J
BMW-0121-072011	8/23/2011	6678	200-6678-14	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.18	J			X		Column RPD	0.18 J
BMW-0122-072011	8/22/2011	6678	200-6678-4	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.38	J			X		Column RPD	0.38 J
BMW-0124-072011	8/23/2011	6678	200-6678-21	Explosives	1,3,5-Trinitrobenzene	µg/L	0.11	J			X		Column RPD	0.11 J
BMW-0124-072011	8/23/2011	6678	200-6678-21	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.058	J			X		Column RPD	0.058 J
BMW-0124-072011	8/23/2011	6678	200-6678-21	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	2.4	J			X		Column RPD	2.4 J
BMW-0125-072011	8/23/2011	6678	200-6678-17	Explosives	1,3,5-Trinitrobenzene	µg/L	0.10	J			X		Column RPD	0.10 J
BMW-0126-072011	8/23/2011	6678	200-6678-25	Explosives	2,4,6-Trinitrotoluene	µg/L	0.83	J			X		Column RPD	0.83 J
BMW-0126-072011	8/23/2011	6678	200-6678-25	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.16	J			X		Column RPD	0.16 J
BMW-0127-072011	8/23/2011	6678	200-6678-28	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.51	J			X		Column RPD	0.51 J
BMW-0137-072011	8/24/2011	6723-1	200-6723-3	Volatiles	Methylene Chloride	µg/L	0.22	U		X			Lab Blank	1.0 U

Table 3-1
Data Quality Evaluation Results - Monitoring Well
Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	%REC	BLK	C_RPD	IS_Surr	Comments	Final Result
BMW-0141-072011	7/19/2011	6110	200-6110-34	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	9.4	J			X		Column RPD	9.4 J
BMW-0148-072011	7/18/2011	6110	200-6110-13	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.095	J			X		Column RPD	0.095 J
BMW-0151-072011	7/18/2011	6110	200-6110-12	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.11	J			X		Column RPD	0.11 J
BMW-0153-072011	7/18/2011	6110	200-6110-9	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.055	J			X		Column RPD	0.055 J
BMW-0157-072011	7/18/2011	6110	200-6110-7	Explosives	1,3,5-Trinitrobenzene	µg/L	0.042	J			X		Column RPD	0.042 J
BMW-0157-072011	7/18/2011	6110	200-6110-7	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.069	J			X		Column RPD	0.069 J
BMW-0157-072011	7/18/2011	6110	200-6110-7	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	1.1	J			X		Column RPD	1.1 J
BMW-024-072011	8/10/2011	6496	200-6496-27	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.18	J			X		Column RPD	0.18 J
BMW-090-072011	8/11/2011	6514	200-6514-8	Explosives	2,4,6-Trinitrotoluene	µg/L	0.17	J			X		Column RPD	0.17 J
BMW-090-072011	8/11/2011	6514	200-6514-8	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.41	J			X		Column RPD	0.41 J
BMW-094-072011	8/11/2011	6514	200-6514-2	Explosives	2,4,6-Trinitrotoluene	µg/L	0.19	J			X		Column RPD	0.19 J
BMW-2100-072011	8/3/2011	6369	200-6369-3	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.097	J			X		Column RPD	0.097 J
BMW-2100-072011LF	7/13/2011	5990	200-5990-13	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.067	J			X		Column RPD	0.067 J
BMW-2124-072011	8/23/2011	6678	200-6678-22	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.055	J			X		Column RPD	0.055 J
BMW-2124-072011	8/23/2011	6678	200-6678-22	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	1.6	J			X		Column RPD	1.6 J
BMW-2125-072011	8/23/2011	6678	200-6678-18	Explosives	1,3,5-Trinitrobenzene	µg/L	0.084	J			X		Column RPD	0.084 J
BMW-2148-072011	7/18/2011	6110	200-6110-14	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.11	J			X		Column RPD	0.11 J
DMW-0103-072011	7/28/2011	6272	200-6272-33	Explosives	2,4,6-Trinitrotoluene	µg/L	0.077	J			X		Column RPD	0.077 J
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	1,3,5-Trinitrobenzene	µg/L	0.10	U				X	Surrogate recovery outside project limits.	0.10 R
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	2,4,6-Trinitrotoluene	µg/L	0.10	U				X	Surrogate recovery outside project limits.	0.10 R
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	2,4-Dinitrotoluene	µg/L	0.13	U				X	Surrogate recovery outside project limits.	0.13 R
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.10	U				X	Surrogate recovery outside project limits.	0.10 R
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.10	U				X	Surrogate recovery outside project limits.	0.10 R
DMW-0104-072011	8/10/2011	6496	200-6496-31	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.10	U				X	Surrogate recovery outside project limits.	0.10 R
DMW-0108-072011	7/28/2011	6272	200-6272-14	Explosives	2,4,6-Trinitrotoluene	µg/L	0.077	J			X		Column RPD	0.077 J
DMW-0110-072011	7/28/2011	6272	200-6272-11	Explosives	2,4,6-Trinitrotoluene	µg/L	0.50	J			X		Column RPD	0.50 J
DMW-0120-072011	8/22/2011	6678	200-6678-11	Explosives	1,3,5-Trinitrobenzene	µg/L	0.34	J			X		Column RPD	0.34 J
DMW-0120-072011	8/22/2011	6678	200-6678-11	Explosives	2,4,6-Trinitrotoluene	µg/L	0.14	J			X		Column RPD	0.14 J
DMW-0126-072011	8/23/2011	6678	200-6678-26	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.063	J			X		Column RPD	0.063 J
DMW-0128-072011	7/25/2011	6214	200-6214-23	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.21	J			X		Column RPD	0.21 J
DMW-0134-072011	8/23/2011	6678	200-6678-32	Volatiles	Trichloroethene	µg/L	23	J	X				MS - high	23 J

Table 3-1
Data Quality Evaluation Results - Monitoring Well
Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	%REC	BLK	C_RPD	IS_Surr	Comments	Final Result
DMW-090-072011	8/11/2011	6514	200-6514-9	Explosives	1,3,5-Trinitrobenzene	µg/L	0.66	J			X		Column RPD	0.66 J
DMW-090-072011	8/11/2011	6514	200-6514-9	Explosives	2,4,6-Trinitrotoluene	µg/L	0.42	J			X		Column RPD	0.42 J
DMW-090-072011	8/11/2011	6514	200-6514-9	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.71	J			X		Column RPD	0.71 J
DMW-090-072011	8/11/2011	6514	200-6514-9	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	1.1	J			X		Column RPD	1.1 J
EMW-0120-072011	8/22/2011	6678	200-6678-12	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.46	J			X		Column RPD	0.46 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	1,3,5-Trinitrobenzene	µg/L	180	J				X	Surrogate recovery outside project limits.	180 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	2,4,6-Trinitrotoluene	µg/L	110	J				X	Surrogate recovery outside project limits.	110 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	2,4-Dinitrotoluene	µg/L	0.40	J			X	X	Column RPD,Surrogate recovery outside project	0.40 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	3.7	J				X	Surrogate recovery outside project limits.	3.7 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	2.1	J				X	Surrogate recovery outside project limits.	2.1 J
EMW-0127-072011	8/23/2011	6678	200-6678-29	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	11	J			X	X	Column RPD,Surrogate recovery outside project	11 J
EMW-0137-072011	8/24/2011	6723-1	200-6723-5	Volatiles	Methylene Chloride	µg/L	1.3	U		X			Lab Blank	6.7 U
EMW-0141-072011	7/19/2011	6110	200-6110-35	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.26	J			X		Column RPD	0.26 J
EMW-0141-072011	7/19/2011	6110	200-6110-35	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	3.4	J			X		Column RPD	3.4 J
EMW-0142-072011	8/10/2011	6496	200-6496-28	Explosives	2,4,6-Trinitrotoluene	µg/L	0.099	J			X		Column RPD	0.099 J
EMW-0142-072011	8/10/2011	6496	200-6496-28	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.36	J			X		Column RPD	0.36 J
EMW-0142-072011	8/10/2011	6496	200-6496-28	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.20	J			X		Column RPD	0.20 J
EMW-0142-072011	8/10/2011	6496	200-6496-28	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.75	J			X		Column RPD	0.75 J
EMW-0155-072011	7/18/2011	6110	200-6110-5	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.050	J			X		Column RPD	0.050 J
OMW-0104-072011	8/10/2011	6496	200-6496-32	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.24	J			X		Column RPD	0.24 J
OMW-0109-072011	8/10/2011	6496	200-6496-39	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.072	J			X		Column RPD	0.072 J

	Reason for Qualification
%REC	LCS - low, LCS - high, MS - low, MS - high
BLK	Ambient Blank, Lab Blank, CCB, CCB - Neg, Trip Blank, Equipment Blank, Field Blank, Material Blank, Lab Blank - Neg
CAL	CCV, CCV RRF, Initial Calibration RRF, Initial Calibration RSD, ICV
OTHER	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank., Analyte not confirmed on second column,
RPD	Lab Replicate RPD, MS RPD, LCS RPD
SAMP	Cooler temperature greater than 10 degreec C., Cooler temperature greater than 4 degrees C, but less than 10 degreec C., Encore sample holding time exceeded by less than 2X., Encore sample holding time

Table 3-2
Data Quality Evaluation Results - Surface Water
Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	C_RPD	Comments	Final Result
OART-072011	7/13/2011	6015	200-6015-11	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.051	J	X	Column-RPD	0.051 J
SCW-206-072011	7/13/2011	6015	200-6015-4	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.024	J	X	Column-RPD	0.024 J
SW-010-072011	7/13/2011	6015	200-6015-14	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.026	J	X	Column-RPD	0.026 J

Reason for Qualification

%REC	LCS - low, LCS - high, MS - low, MS - high
BLK	Ambient Blank, Lab Blank, CCB, CCB - Neg, Trip Blank, Equipment Blank, Field Blank, Material Blank, Lab Blank - Neg
CAL	CCV, CCV RRF, Initial Calibration RRF, Initial Calibration RSD, ICV
IS_Surr	Internal standard, Surrogate recovery outside project limits.
OTHER	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank., Analyte not confirmed on second column,
RPD	Lab Replicate RPD, MS RPD, LCS RPD
SAMP	Cooler temperature greater than 10 degreec C., Cooler temperature greater than 4 degrees C, but less than 10 degreec C., Encore sample holding time exceeded by less than 2X., Encore sample holding time

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Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Blank					
AMW-0101-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
AMW-0104-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
AMW-0105-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0109-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
AMW-0111-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
AMW-0112-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-0112-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-0112-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-0112-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-0113-072011	6367	cis-1,2-Dichloroethylene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-0113-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-0113-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-0113-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-0114-072011	6760	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
AMW-0115-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-0115-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-0115-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-0115-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-0124-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
AMW-0126-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
AMW-0133-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0134-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0135-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0136-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0137-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-0138-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
AMW-0139-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
AMW-0154-072011LF	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-020-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
AMW-024-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
AMW-038-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-038-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-038-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-038-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-046-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-046-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-046-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-046-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-061-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
AMW-081-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
AMW-082-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-085-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
AMW-085-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
AMW-085-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
AMW-086-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
AMW-086-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
AMW-086-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
AMW-088-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-088-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-088-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-088-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-095-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-096-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-098-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
AMW-098-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
AMW-098-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
AMW-2105-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
AMW-2109-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
AMW-224-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
AMW-238-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-238-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
AMW-238-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-238-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-246-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
AMW-246-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-246-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
AMW-246-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
AMW-298-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
AMW-298-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
AMW-298-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-0100-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
BMW-0100-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
BMW-0100-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-0101-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-0104-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
BMW-0105-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0109-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
BMW-0111-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
BMW-0112-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
BMW-0112-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
BMW-0112-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
BMW-0112-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
BMW-0113-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
BMW-0113-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-0114-072011	6760	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0115-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
BMW-0115-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
BMW-0115-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
BMW-0115-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
BMW-0124-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
BMW-0126-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
BMW-0127-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
BMW-0133-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0134-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0135-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0136-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-0137-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
BMW-0138-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
BMW-0139-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
BMW-0153-072011LF	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-020-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-024-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
BMW-046-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
BMW-046-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
BMW-046-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
BMW-046-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
BMW-061-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-081-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-082-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-085-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
BMW-085-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
BMW-085-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-086-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
BMW-086-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
BMW-086-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
BMW-088-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
BMW-088-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
BMW-088-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
BMW-088-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
BMW-095-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-096-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-098-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
BMW-098-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
BMW-098-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-2100-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
BMW-2100-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
BMW-2100-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
BMW-2101-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
BMW-2109-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
BMW-2111-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
BMW-2124-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
BMW-2125-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
BMW-286-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
BMW-286-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
BMW-286-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
CMW-020-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
DMW-0100-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
DMW-0100-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
DMW-0100-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
DMW-0101-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
DMW-0104-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
DMW-0113-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
DMW-0113-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
DMW-0113-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
DMW-0114-072011	6760	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-0115-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
DMW-0115-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
DMW-0115-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
DMW-0115-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
DMW-0124-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
DMW-0125-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
DMW-0126-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
DMW-0133-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-0134-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-0135-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-0136-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-0137-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.21 µg/L
DMW-038-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
DMW-038-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
DMW-038-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
DMW-038-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
DMW-046-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
DMW-046-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
DMW-046-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
DMW-046-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
DMW-061-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
DMW-081-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
DMW-082-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
DMW-085-072011	6369	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
DMW-085-072011	6369	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
DMW-085-072011	6369	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
DMW-086-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
DMW-086-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
DMW-086-072011	6367	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
DMW-088-072011	6367	cis-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.27 µg/L
DMW-088-072011	6367	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.28 µg/L
DMW-088-072011	6367	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.53 µg/L
DMW-088-072011	6367	trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.41 µg/L
DMW-095-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
DMW-096-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
EMW-0127-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
EMW-0136-072011	6678	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
EMW-0137-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
EMW-0142-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.20 µg/L
OMW-0104-072011	6723-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
OMW-0105-072011	6723-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
OMW-0109-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
OMW-0111-072011	6723-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.22 µg/L
Equipment Blank					
AMW-0154-072011LF	6723-3	Methylene Chloride	Field Blank > MDL	< 0.17 µg/L	0.95 µg/L
BMW-0153-072011LF	6723-3	Methylene Chloride	Field Blank > MDL	< 0.17 µg/L	0.95 µg/L
Field Duplicate RPD					
AMW-024-072011	6723-1	trans-1,2-Dichloroethene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-224-072011	6723-1	trans-1,2-Dichloroethene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
LCS Recovery					
AMW-0100-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-0112-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-0113-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-0115-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-0116-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
AMW-0158-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
AMW-0158-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
AMW-038-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-046-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-086-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
AMW-088-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-238-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
AMW-246-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
BMW-0100-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
BMW-0112-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
BMW-0115-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
BMW-0116-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
BMW-0158-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
BMW-0158-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
BMW-046-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
BMW-086-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
BMW-088-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
BMW-2100-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
BMW-286-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
DMW-0115-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
DMW-0116-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
DMW-0158-072011	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
DMW-0158-072011LF	5990	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
DMW-038-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
DMW-046-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
DMW-086-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
DMW-088-072011	6367	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	116 %
MS Recovery					
BMW-046-072011	6367	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	121 %
BMW-098-072011	6369	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	116 %
BMW-098-072011	6369	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	120 %
DMW-0134-072011	6678	trichloroethene	Matrix Spike exceeds UCL	80 - 120 %	149 %
DMW-0134-072011	6678	trichloroethene	Matrix Spike exceeds UCL	80 - 120 %	164 %
DMW-038-072011	6367	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	120 %
DMW-038-072011	6367	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	121 %
Trip Blank					
AMW-0112-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-0113-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-0115-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-038-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-046-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-086-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
AMW-238-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L

Table 3-3
VOC Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-246-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-0112-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-0115-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-046-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-086-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-088-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
BMW-286-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-0113-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-0115-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-038-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-046-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-086-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L
DMW-088-072011	6367	trichloroethene	Field Blank > MDL	< 0.2 µg/L	0.28 µg/L

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Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Confirmation Column Difference					
AMW-0100-072011	6369	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	73.3 RPD
AMW-0100-072011	6369	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	44.1 RPD
AMW-0100-072011LF	5990	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	64.2 RPD
AMW-0103-072011	6272	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	49.1 RPD
AMW-0103-072011	6272	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	71.2 RPD
AMW-0109-072011	6496	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	43.7 RPD
AMW-0112-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	69.6 RPD
AMW-0120-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	105 RPD
AMW-0122-072011	6678	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	45.3 RPD
AMW-0122-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	75.4 RPD
AMW-0126-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	188 RPD
AMW-0127-072011	6678	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	58.8 RPD
AMW-0141-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	198 RPD
AMW-0142-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	180 RPD
AMW-0145-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	70.3 RPD
AMW-0149-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	49.3 RPD
AMW-0153-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	159 RPD
AMW-0155-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	45.9 RPD
AMW-0155-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	163 RPD
AMW-0159-072011	6272	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	50.3 RPD
AMW-038-072011	6367	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	148 RPD
AMW-038-072011	6367	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	159 RPD

Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-038-072011	6367	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	83.9 RPD
AMW-038-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	145 RPD
AMW-084-072011	6369	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	109 RPD
AMW-086-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	103 RPD
AMW-090-072011	6514	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	118 RPD
AMW-090-072011	6514	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	109 RPD
AMW-2155-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	98.9 RPD
AMW-2155-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	171 RPD
AMW-238-072011	6367	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	151 RPD
AMW-238-072011	6367	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	161 RPD
AMW-238-072011	6367	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	60.5 RPD
AMW-238-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	118 RPD
BMW-0100-072011	6369	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	44.9 RPD
BMW-0102-072011	6272	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	97.0 RPD
BMW-0113-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	173 RPD
BMW-0115-072011	6367	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	129 RPD
BMW-0120-072011	6678	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	183 RPD
BMW-0120-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	66.7 RPD
BMW-0121-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	59.9 RPD
BMW-0122-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	43.3 RPD
BMW-0124-072011	6678	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	63.5 RPD
BMW-0124-072011	6678	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	185 RPD
BMW-0124-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	56.7 RPD

Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
BMW-0125-072011	6678	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	68.5 RPD
BMW-0126-072011	6678	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	72.1 RPD
BMW-0126-072011	6678	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	159 RPD
BMW-0127-072011	6678	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	141 RPD
BMW-0141-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	84.0 RPD
BMW-0148-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	51.0 RPD
BMW-0151-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	143 RPD
BMW-0153-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	123 RPD
BMW-0157-072011	6110	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	142 RPD
BMW-0157-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	134 RPD
BMW-0157-072011	6110	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	106 RPD
BMW-024-072011	6496	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	82.0 RPD
BMW-090-072011	6514	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	77.6 RPD
BMW-090-072011	6514	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	56.3 RPD
BMW-094-072011	6514	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	152 RPD
BMW-2100-072011	6369	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	42.9 RPD
BMW-2100-072011LF	5990	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	56.7 RPD
BMW-2124-072011	6678	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	182 RPD
BMW-2124-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	69.4 RPD
BMW-2125-072011	6678	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	68.8 RPD
BMW-2148-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	66.7 RPD
DMW-0103-072011	6272	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	82.6 RPD
DMW-0108-072011	6272	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	50.4 RPD

Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
DMW-0110-072011	6272	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	147 RPD
DMW-0120-072011	6678	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	112 RPD
DMW-0120-072011	6678	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	155 RPD
DMW-0126-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	169 RPD
DMW-090-072011	6514	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	107 RPD
DMW-090-072011	6514	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	94.7 RPD
DMW-090-072011	6514	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	60.6 RPD
DMW-090-072011	6514	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	78.5 RPD
EMW-0120-072011	6678	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	151 RPD
EMW-0127-072011	6678	2,4-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	63.2 RPD
EMW-0127-072011	6678	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	138 RPD
EMW-0141-072011	6110	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	152 RPD
EMW-0141-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	126 RPD
EMW-0142-072011	6496	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	83.2 RPD
EMW-0142-072011	6496	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	106 RPD
EMW-0142-072011	6496	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	71.0 RPD
EMW-0142-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	60.5 RPD
EMW-0155-072011	6110	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	152 RPD
OMW-0104-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	118 RPD
OMW-0109-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	57.4 RPD
Field Duplicate RPD					
AMW-0122-072011	6678	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-0122-072011	6678	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-0122-072011	6678	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	72.7 RPD
AMW-024-072011	6496	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD

Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
AMW-038-072011	6367	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	68.3 RPD
AMW-038-072011	6367	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	48.6 RPD
AMW-038-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	87.8 RPD
AMW-2122-072011	6678	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-2122-072011	6678	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-2122-072011	6678	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	72.7 RPD
AMW-224-072011	6496	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
AMW-238-072011	6367	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	68.3 RPD
AMW-238-072011	6367	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	48.6 RPD
AMW-238-072011	6367	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	87.8 RPD
BMW-0102-072011	6272	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
BMW-0106-072011	6272	2,4,6-Trinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
BMW-0124-072011	6678	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	54.3 RPD
BMW-0124-072011	6678	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	40.0 RPD
BMW-2102-072011	6272	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
BMW-2124-072011	6678	1,3,5-Trinitrobenzene	Field Duplicate exceeds UCL	< 40 RPD	54.3 RPD
BMW-2124-072011	6678	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	40.0 RPD
EMW-0144-072011	6110	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	72.9 RPD
EMW-0144-072011	6110	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	122 RPD
EMW-2144-072011	6110	4-Amino-2,6-Dinitrotoluene	Field Duplicate exceeds UCL	< 40 RPD	72.9 RPD
EMW-2144-072011	6110	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Field Duplicate exceeds UCL	< 40 RPD	122 RPD
MS Recovery					
BMW-0105-072011	6496	1,3,5-Trinitrobenzene	Matrix Spike < minimum LWL	65 - 110 %	58.3 %
BMW-0105-072011	6496	2,4,6-Trinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	58.6 %
BMW-0105-072011	6496	2,4-Dinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	63.8 %
BMW-0105-072011	6496	2-Amino-4,6-Dinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	61.6 %
BMW-0105-072011	6496	4-Amino-2,6-Dinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	63.9 %
BMW-0105-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Matrix Spike < minimum LWL	70 - 115 %	59.5 %
BMW-0109-072011	6496	1,3,5-Trinitrobenzene	Matrix Spike < minimum LWL	65 - 110 %	58.6 %
BMW-0109-072011	6496	2,4,6-Trinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	62.6 %
BMW-0109-072011	6496	2-Amino-4,6-Dinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	64.8 %
BMW-0109-072011	6496	4-Amino-2,6-Dinitrotoluene	Matrix Spike < minimum LWL	70 - 115 %	66.4 %
BMW-0109-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Matrix Spike < minimum LWL	70 - 115 %	57.8 %

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Table 3-4
Explosives Quality Control Outliers
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Surrogate					
DMW-0104-072011	6496	2,4-Dinitrotoluene	Surrogate < minimum LCL	1,2-Dinitrobenzene 70 - 115 %	2.0 %
DMW-0104-072011	6496	2-Amino-4,6-Dinitrotoluene	Surrogate < minimum LCL	1,2-Dinitrobenzene 70 - 115 %	2.0 %
DMW-0104-072011	6496	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Surrogate < minimum LCL	1,2-Dinitrobenzene 70 - 115 %	2.0 %
EMW-0127-072011	6678	2,4-Dinitrotoluene	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	126 %
EMW-0127-072011	6678	2-Amino-4,6-Dinitrotoluene	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	126 %
EMW-0127-072011	6678	4-Amino-2,6-Dinitrotoluene	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	126 %
EMW-0127-072011	6678	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	126 %

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Table 4-1
Field Completeness
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Number of Samples Planned	Number of Samples Collected	Field Completeness
Explosives	218	218	100.0%
Volatiles	235	235	100.0%
Totals =	453	453	100.0%
Goal =			95%

Notes:

Number of Samples Planned includes field samples and field duplicate samples.

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Table 4-2
Field Completeness
Third Quarter 2011 Surface Water Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Number of Samples Planned	Number of Samples Collected	Field Completeness
Explosives	14	14	100%
Volatiles	14	14	100%
Totals =	28	28	100.0%
Goal =			95%

Notes:

Number of Samples Planned includes field samples and field duplicate samples.

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Table 4-3
Analytical Completeness
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Total Number of Parameters	Acceptable Data	Acceptable Data Completeness	Acceptable Data Completeness Goals	Quality Data	Quality Data Completeness	Quality Data Completeness Goals
Explosives (Analyte Count - 6)	1308	1285	98.2%	90%	1302	99.5%	80%
Volatiles (Analyte Count - 6)	1410	1409	99.9%	90%	1410	100.0%	80%
Totals =	2718	2694	99.1%	90%	2712	99.8%	80%

Notes:

Total number of parameters includes field samples (includes data points from dilutions and/or reanalyses to be used in place of original data) and field duplicates (does not include field blanks or trip blanks).
Acceptable data includes data that has not been rejected or qualified as estimated (J/UJ). Data points for which the required corrective actions were taken or do not require corrective action do not count against the acceptable data completeness goal calculation (i.e., results exceeding the calibration range that were reanalyzed at dilutions within the calibration range).
Quality data is defined as all non-rejected data.

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Table 4-4
Analytical Completeness
Third Quarter 2011 Surface Water Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Total Number of Parameters	Acceptable Data	Acceptable Data Completeness	Acceptable Data Completeness Goals	Quality Data	Quality Data Completeness	Quality Data Completeness Goals
Explosives (Analyte Count - 6)	84	84	100.0%	90%	84	100.0%	80%
Volatiles (Analyte Count - 6)	84	84	100.0%	90%	84	100.0%	80%
Totals =	168	168	100.0%	90%	168	100.0%	80%

Notes:

Total number of parameters includes field samples (includes data points from dilutions and/or reanalyses to be used in place of original data) and field duplicates (does not include field blanks or trip blanks).
Acceptable data includes data that has not been rejected or qualified as estimated (J/UJ). Data points for which the required corrective actions were taken or do not require corrective action do not count against the acceptable data completeness goal calculation (i.e., results exceeding the calibration range that were reanalyzed at dilutions within the calibration range).
Quality data is defined as all non-rejected data.

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Table 4-5
Project Completeness
Third Quarter 2011 Monitoring Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field	Analytical	Project Completeness
100.0%	99.8%	99.8%
Project Completeness Goal =		90%

Notes:

Analytical Completeness is the percentage of usable data (i.e. quality data completeness).
Project Completeness combines sampling and analytical protocols to access the expctations of the project as a whole. Project completeness is determined by comparing the percentage of samples / measurements that are determined to be usable to the total number of samples / measurements planned.

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Table 4-6
Project Completeness
Third Quarter 2011 Surface Water Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field	Analytical	Project Completeness
100.0%	100.0%	100.0%
Project Completeness Goal =		90%

Notes:

Analytical Completeness is the percentage of usable data (i.e. quality data completeness).
Project Completeness combines sampling and analytical protocols to access the expctations of the project as a whole. Project completeness is determined by comparing the percentage of samples / measurements that are determined to be usable to the total number of samples / measurements planned.

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Appendix A
Chain of Custody Records

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TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR SE 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-5-11	COC No: 070511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-R111111/P12061-072011	7-5-11	1335	G	W	2	X										
RIN-R11275/P11924-072011	7-5-11	1405	G	W	5	X	X									
RIN-R111111/P12061-072011	7-5-11	1335	G	W	5	X	X									
RIN-R101570-072011	7-5-11	1445	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby U. Hinz	ECC	7-5-11	Fed-ex 7949	3440 2869	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/6/11 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW SE 2011

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-12-11	COC No: 071211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-2116-072011	7-12-11	0945	G	W	2	X										
Bmw-0116-072011	7-12-11	0945	G	W	5	X	X									
Dmw-0116-072011	7-12-11	1005	G	W	5	X	X									
Amw-0116-072011	7-12-11	1015	G	W	5	X	X									
Amw-0158-072011	7-12-11	1035	G	W	5	X	X									
Bmw-0158-072011	7-12-11	1050	G	W	5	X	X									
Dmw-0158-072011	7-12-11	1100	G	W	5	X	X									
Amw-0158-072011 LF	7-12-11	1450	G	W	~~3~~	X	~~X~~									
Bmw-0158-072011 LF	7-12-11	1525	G	W	3	X										
Dmw-0158-072011 LF	7-12-11	1600	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D.	ECC	7-13-11	Fed-ex 7973	0078 1378	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/14/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR mw SE 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-13-11	COC No: 071211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
A mw-0100-072011 LF	7-13-11	0830	G	w	5	X	X									
B mw-0100-072011 LF	7-13-11	0900	G	w	5	X	X									
B mw-2100-072011 LF	7-13-11	0900	G	w	5	X	X									
D mw-0100-072011 LF	7-13-11	0930	G	w	5	X	X									
A mw-085-072011 LF	7-13-11	1015	G	w	5	X	X									
B mw-085-072011 LF	7-13-11	1050	G	w	5	X	X									
D mw-085-072011 LF	7-13-11	1125	G	w	3	X										

Page 513 of 514

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	7-13-11	Fed-ex 7973	0078 1378	
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 7/14/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW sampling

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/18/2011	COC No: ~~1 of 1~~ 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0154-072011	7/18/11	0955	G	W	5	X	X									
BMW-0154-072011	7/18/11	1005	G	W	5	X	X									
AMW-0155-072011	7/18/11	1040	G	W	5	X	X									
BMW-0155-072011	7/18/11	1040	G	W	5	X	X									
CMW-0155-072011	7/18/11	1100	G	W	5	X	X									
EMW-0155-072011 MS	7/18/11	1100	G	W	5	X	X									
EMW-0155-072011 MSD	7/18/11	1100	G	W	4	X	X									
AMW-0157-072011	7/18/11	1140	G	W	5	X	X									
BMW-0157-072011	7/18/11	1155	G	W	5	X	X									
AMW-0153-072011	7/18/11	1235	G	W	5	X	X									
BMW-0153-072011	7/18/11	1245	G	W	5	X	X									
BMW-0152-072011	7/18/11	1320	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	7/18/11 1700	Fed-ex 7973	1984 7649	
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/18/2011	COC No: ~~2 of 2~~ 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0151-072011	7/18/11	1340	G	W	5	X	X									
BMW-0151-072011	7/18/11	1350	G	W	5	X	X									
BMW-0148-072011	7/18/11	1430	G	W	5	X	X									
BMW-2148-072011	7/18/11	1430	G	W	5	X	X									
BMW-0143-072011	7/18/11	1510	G	W	5	X	X									
AMW-0149-072011	7/18/11	1535	G	W	5	X	X									
AMW-0150-072011	7/18/11	1605	G	W	5	X	X									
BMW-0150-072011	7/18/11	1615	G	W	5	X	X									
TRB - AMW..0154-072011	7/18/11	0800	G	W	2	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECR	7/18/2011 1700	Fed-ex 7973 1984 7649		
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Page 13 of 28

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/19/2011	COC No: 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0147-072011	7/19/11	1245	G	W	5	X	X									
BMW-0147-072011	7/19/11	1255	G	W	5	X	X									
DMW-0147-072011	7/19/11	1305	G	W	5	X	X									
AMW-0146-072011	7/19/11	1335	G	W	5	X	X									
BMW-0146-072011	7/19/11	1345	G	W	5	X	X									

Page 1383 of 1388

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee Ell	FCR	7-19-11 1700	Fed-ex 7973	1984 76	49
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/19/2011	COC No: 07181
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0156-072011	7/19/11	0830	G	W	5	X	X									
BMW-0156-072011	7/19/11	0840	G	W	5	X	X									
BMW-2156-072011	7/19/11	0840	G	W	5	X	X									
AMW-0145-072011	7/19/11	0925	G	W	5	X	X									
EMW-0145-072011	7/19/11	0935	G	W	5	X	X									
AMW-0144-072011	7/19/11	1010	G	W	5	X	X									
EMW-0144-072011	7/19/11	1020	G	W	5	X	X									
BMW-0144-072011	7/19/11	1020	G	W	5	X	X									
AMW-0141-072011	7/19/11	1100	G	W	5	X	X									
BMW-0141-072011	7/19/11	1110	G	W	5	X	X									
EMW-0141-072011	7/19/11	1120	G	W	5	X	X									
AMW-0142-072011	7/19/11	1155	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ICR	1700 7-19-11	Fed-ex 7973	7984	7649
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/25/11	COC No: 072511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-~~MW-235A~~ 235 072011	7/25/11	0800	G	W	2	X										
AMW-035-072011	7/25/11	0840	G	W	5	X	X									
BMW-035-072011	7/25/11	0850	G	W	5	X	X									
BMW-235-072011	7/25/11	0850	G	W	5	X	X									
DMW-035-072011	7/25/11	0910	G	W	5	X	X									
AMW-0130-072011	7/25/11	0935	G	W	2		X									
BMW-0130-072011	7/25/11	0945	G	W	2		X									
DMW-0130-072011	7/25/11	0955	G	W	2		X									
AMW-0129-072011	7/25/11	1020	G	W	2		X									
BMW-0129-072011	7/25/11	1030	G	W	2		X									
BMW-0129-072011 MS	7/25/11	1030	G	W	2		X									
BMW-0129-072011 MSD	7/25/11	1030	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Pony Lundell	FCR	7-26-11 1700	Fed-ex 7950	1244	0888
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/27/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR MW Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/25/11	COC No: 072511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Dmw-0129-072011	7/25/11	1045	G	W	2		X									
Amw-0131-072011	7/25/11	1115	G	W	2		X									
Bmw-0131-072011	7/25/11	1125	G	W	2		X									
Dmw-0131-072011	7/25/11	1135	G	W	2		X									
Amw-0118-072011	7/25/11	1205	G	W	5	X	X									
Amw-2118-072011	7/25/11	1205	G	W	2		X									
Bmw-0118-072011	7/25/11	1225	G	W	5	X	X									
Bmw-0118-072011 MS	7/25/11	1225	G	W	5	X	X									
Bmw-0118-072011 MSD	7/25/11	1225	G	W	4	X	X									
Amw-0132-072011	7/25/11	1345	G	W	2		X									
Bmw-0132-072011	7/25/11	1355	G	W	2		X									
Dmw-0132-072011	7/25/11	1405	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee	ICR	1700 7-26-11	Fed-ex 7950	1244 0188	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/27/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR mw sampline

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/25/11	COC No: 072511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0128-072011	7/25/11	1430	G	W	2		X									
BMW-0128-072011	7/25/11	1440	G	W	2		X									
DMW-0128-072011	7/25/11	1450	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECR	1700 7-26-11	Fed-ex 7950	1244 0188	
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/27/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW Sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-27-11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0117-072011	7/27/11	0830	G	W	5	X	X									
BMW-0117-072011	7/27/11	0840	G	W	5	X	X									
DMW-0117-072011	7/27/11	0850	G	W	5	X	X									
AMW-0140-072011	7/27/11	1000	G	W	3	X										
BMW-0140-072011	7/27/11	1010	G	W	3	X										
DMW-0140-072011	7/27/11	1020	G	W	3	X										
OMW-0140-072011	7/27/11	1030	G	W	3	X										
TRB-2117-072011	7/27/11	0830	G	W	2	X										
AMW-0110-072011	7/28/11	0815	G	W	5	X	X									
BMW-0110-072011	7/28/11	0825	G	W	5	X	X									
DMW-0110-072011	7/28/11	0835	G	W	5	X	X									
AMW-0108-072011	7/28/11	0900	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

MW-140 cluster in separate cooler do to possible Higher concentration

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee	ICR	1700 7-28-11	Fed-ex 7973 5462 7460		
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR MW Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/28/11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
BMW-0108-072011	7/28/11	0910	G	W	5	X	X									
DMW-0108-072011	7/28/11	0920	G	W	5	X	X									
AMW-0107-072011	7/28/11	0945	G	W	5	X	X									
BMW-0107-072011	7/28/11	0955	G	W	5	X	X									
DMW-0107-072011	7/28/11	1005	G	W	5	X	X									
AMW-0106-072011	7/28/11	1030	G	W	5	X	X									
BMW-0106-072011	7/28/11	1040	G	W	5	X	X									
BMW-2106-072011	7/28/11	1040	G	W	5	X	X									
DMW-0106-072011	7/28/11	1055	G	W	5	X	X									
AMW-0159-072011	7/28/11	1130	G	W	5	X	X									
BMW-0159-072011	7/28/11	1140	G	W	5	X	X									
AMW-~~041~~ BLE 041-072011	7/28/11	1305	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lum	FCR	7-28-11 1200	FedEx 7973 5462		7460
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr mw sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/28/11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Bmw-041-072011	7/28/11	1315	G	W	5	X	X									
Dmw-041-072011	7/28/11	1325	G	W	5	X	X									
Bmw-0102-072011	7/28/11	1410	G	W	5	X	X									
Bmw-0102-072011	7/28/11	1420	G	W	5	X	X									
Bmw-2102-072011	7/28/11	1420	G	W	5	X	X									
Dmw-0102-072011	7/28/11	1440	G	W	5	X	X									
Bmw-0103-072011	7/28/11	1505	G	W	5	X	X									
Bmw-0103-072011	7/28/11	1515	G	W	5	X	X									
Dmw-0103-072011	7/28/11	1525	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	FCR	1700 7-28-11	Fed-Ex 7973	5462	7/60
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW Sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-27-11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0117-072011	7/27/11	0830	G	W	5	X	X									
BMW-0117-072011	7/27/11	0840	G	W	5	X	X									
DMW-0117-072011	7/27/11	0850	G	W	5	X	X									
AMW-0140-072011	7/27/11	1000	G	W	3	X										
BMW-0140-072011	7/27/11	1010	G	W	3	X										
DMW-0140-072011	7/27/11	1020	G	W	3	X										
OMW-0140-072011	7/27/11	1030	G	W	3	X										
TRB-2117-072011	7/27/11	0830	G	W	2	X										
AMW-0110-072011	7/28/11	0815	G	W	5	X	X									
BMW-0110-072011	7/28/11	0825	G	W	5	X	X									
DMW-0110-072011	7/28/11	0835	G	W	5	X	X									
AMW-0108-072011	7/28/11	0900	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

MW-140 cluster in separate cooler do to possible Higher concentration

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee	ICR	1700 7-28-11	Fed-ex 7973 5462 7460		
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR MW Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/28/11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
BMW-0108-072011	7/28/11	0910	G	W	5	X	X									
DMW-0108-072011	7/28/11	0920	G	W	5	X	X									
AMW-0107-072011	7/28/11	0945	G	W	5	X	X									
BMW-0107-072011	7/28/11	0955	G	W	5	X	X									
DMW-0107-072011	7/28/11	1005	G	W	5	X	X									
AMW-0106-072011	7/28/11	1030	G	W	5	X	X									
BMW-0106-072011	7/28/11	1040	G	W	5	X	X									
BMW-2106-072011	7/28/11	1040	G	W	5	X	X									
DMW-0106-072011	7/28/11	1055	G	W	5	X	X									
AMW-0159-072011	7/28/11	1130	G	W	5	X	X									
BMW-0159-072011	7/28/11	1140	G	W	5	X	X									
AMW-~~041~~ BLE 041-072011	7/28/11	1305	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lum	FCR	7-28-11 1200	FedEx 7973 5462		7460
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr mw sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7/28/11	COC No: 072711
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Bmw-041-072011	7/28/11	1315	G	W	5	X	X									
Dmw-041-072011	7/28/11	1325	G	W	5	X	X									
Bmw-0102-072011	7/28/11	1410	G	W	5	X	X									
Bmw-0102-072011	7/28/11	1420	G	W	5	X	X									
Bmw-2102-072011	7/28/11	1420	G	W	5	X	X									
Dmw-0102-072011	7/28/11	1440	G	W	5	X	X									
Bmw-0103-072011	7/28/11	1505	G	W	5	X	X									
Bmw-0103-072011	7/28/11	1515	G	W	5	X	X									
Dmw-0103-072011	7/28/11	1525	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	FCR	1700 7-28-11	Fed-Ex 7973	5462	7/60
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 7/29/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd Qtr mw sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8/3/11	COC No. 080211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 5 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0100-072011	8/3/11	0805	G	W	5	X	X									
BMW-0100-072011	8/3/11	0815	G	W	5	X	X									
BMW-2100-072011	8/3/11	0825	G	W	5	X	X									
BMW-0100-072011	8/3/11	0835	G	W	5	X	X									
AMW-085-072011	8/3/11	0905	G	W	5	X	X									
BMW-085-072011	8/3/11	0915	G	W	5	X	X									
BMW-085-072011	8/3/11	0925	G	W	5	X	X									
AMW-098-072011	8/3/11	1000	G	W	5	X	X									
AMW-298-072011	8/3/11	1000	G	W	5	X	X									
BMW-098-072011	8/3/11	1020	G	W	5	X	X									
BMW-098-072011 MS	8/3/11	1020	G	W	5	X	X									
BMW-098-072011 MSD	8/3/11	1020	G	W	4	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	1700 8-3-11	Fed-ex 7950	4296 7526	
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 8/4/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

estAmerica Burlington
Community Drive
ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW sampling..

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8/3/11	COC No: 080211
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	5 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
akewood, CO 80401	Calendar (C) or Work Days (W)			5447.002
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Dmw-098-072011	8/3/11	1050	G	W	5	X	X									
Amw-084-072011	8/3/11	1115	G	W	5	X	X									
Bmw-084-072011	8/3/11	1125	G	W	5	X	X									
Dmw-084-072011	8/3/11	1135	G	W	5	X	X									
Amw-083-072011	8/3/11	1210	G	W	5	X	X									
Bmw-083-072011	8/3/11	1220	G	W	5	X	X									
Dmw-083-072011	8/3/11	1230	G	W	5	X	X									
Amw-097-072011	8/3/11	1305	G	W	5	X	X									
Bmw-097-072011	8/3/11	1315	G	W	5	X	X									
Dmw-097-072011	8/3/11	1325	G	W	5	X	X									

Page 8 of 11

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Gary Lane Ell	ICR	1700 8-3-11	Fed-ex 7950	4296 7526	
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 8/4/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr mw sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-9-11	COC No: 080911
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9056A/9034 - Anions (Sulfide)	Receipt Notes: Sample Specific Notes:
TRB-296-072011	8/9/11	0835	G	W	2	X										Not rcvd
Amw-096-072011	8/9/11	0835	G	W	5	X	X									
Bmw-096-072011	8/9/11	0845	G	W	5	X	X									VOA not rcvd
Dmw-096-072011	8/9/11	0855	G	W	5	X	X									8330 Hold time
Amw-082-072011	8/9/11	0945	G	W	5	X	X									up before job
Bmw-082-072011	8/9/11	0955	G	W	5	X	X									active
Dmw-082-072011	8/9/11	1005	G	W	5	X	X									Not RCVD
AMW-095-072011	8/9/11	1040	G	W	5	X	X									
BMW-095-072011	8/9/11	1050	G	W	5	X	X									Same as
Dmw-095-072011	8/9/11	1100	G	W	5	X	X									above
Amw-020-072011	8/9/11	1135	G	W	5	X	X									
Bmw-020-072011	8/9/11	1145	G	W	5	X	X									NOT RCVD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee	ICR	1800 8-10-11	Fed-ex 7950 6793 68		
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 8/11/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-9-11	COC No: 080911
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5947.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Receipt Notes: Sample Specific Notes:
~~Bmw~~ Cmw-020-072011	8/9/11	1155	G	W	~~3~~ 4	X	X									
Amw-081-072011	8/9/11	1235	G	W	5	X	X									NOT RCVD
Bmw-081-072011	8/9/11	1245	G	W	5	X	X									
Cmw-081-072011	8/9/11	1255	G	W	5	X	X									
Amw-061-072011	8/9/11	1330	G	W	5	X	X									
Bmw-061-072011	8/9/11	1340	G	W	5	X	X									NOT RCVD
Cmw-061-072011	8/9/11	1350	G	W	5	X	X									NOT RCVD
Amw-0101-072011	8/9/11	1420	G	W	5	X	X									
Bmw-0101-072011	8/9/11	1430	G	W	5	X	X									
Bmw-2101-072011	8/9/11	1430	G	W	5	X	X									
Dmw-0101-072011	8/9/11	1450	G	W	5	X	X									
Amw-0114-072011	8/9/11	1530	G	W	5	X	X									

all others NA not rcvd 8330 HT up before active

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lane	ICR	1800 8-10-11	Fed-Ex 7950	6793	6818
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/11/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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ite 11
outh Burlington, VT 5403
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Groundwater samples

3rd QTR MW Sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-9-11	COC No: 080911
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
303) 298-7607 Phone	TAT if different from Below			
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Receipt Notes Sample Specific Notes:
Bmw-0114-072011	8/9/11	1540	G	W	5	X	X									VOA not rcvd. 8330 HT expired
Dmw-0114-072011	8/9/11	1550	G	W	5	X	X									
Amw-0105-072011	8/10/11	0820	G	W	5	X	X									
Amw-2105-072011	8/10/11	0820	G	W	5	X	X									
Bmw-0105-072011	8/10/11	0840	G	W	5	X	X									
Bmw-0105-072011 MS	8/10/11	0840	G	W	5	X	X									
Bmw-0105-072011 MSD	8/10/11	0840	G	W	5	X	X									
Dmw-0105-072011	8/10/11	0915	G	W	5	X	X									
Amw-024-072011	8/10/11	1005	G	W	5	X	X									
Amw-024-072011	8/10/11	1005	G	W	5	X	X									
Bmw-024-072011	8/10/11	1025	G	W	5	X	X									
Bmw-024-072011 MS	8/10/11	1025	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ICR	1800 8-10-11	Fed-Ex 7950	6793	6818
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 8/11/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
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hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-10-11	COC No: 080911
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
BMW-024-072011 MSD	8/10/11	1025	G	W	4	X	X									
EMW-0142-072011	8/10/11	1115	G	W	5	X	X									
AMW-0104-072011	8/10/11	1255	G	W	5	X	X									
BMW-0104-072011	8/10/11	1305	G	W	5	X	X									
DMW-0104-072011	8/10/11	1315	G	W	5	X	X									
CMW-0104-072011	8/10/11	1325	G	W	5	X	X									
AMW-0111-072011	8/10/11	1400	G	W	5	X	X									
BMW-0111-072011	8/10/11	1410	G	W	5	X	X									
OMW-0111-072011	8/10/11	1420	G	W	5	X	X									
AMW-0109-072011	8/10/11	1500	G	W	5	X	X									
AMW-2109-072011	8/10/11	1500	G	W	5	X	X									
BMW-0109-072011	8/10/11	1520	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee Gilbert	ICR	1800 8-10-11	Fed-Ex 7950	6793	6818
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/11/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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one 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-10-11	COC No: 080911
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	5 of 5 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
03) 298-7607 Phone	TAT if different from Below			SDG No.
03) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
B-MW-0109-072011 MS	8/10/11	1520	G	W	5	X	X									
B-MW-0109-072011 MSD	8/10/11	1520	G	W	4	X	X									
B-MW-0109-072011	8/10/11	1550	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ICC	1800 8-10-11	Fed-ex 7950	6793	6818
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 8/11/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples 3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-22-11	COC No: 082211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-2122-072011	~~8/22/11~~	1255	G	W	2	X										
AMW-0122-072011	~~8/22/11~~	1255	G	W	5	X	X									
BMW-2122-072011	8/22/11	1255	G	W	2		X									
BMW-0122-072011	8/22/11	1310	G	W	5	X	X									
BMW-0122-072011 MS	8/22/11	1310	G	W	5	X	X									
BMW-0122-072011 MSD	8/22/11	1310	G	W	4	X	X									
AMW-0119-072011	8/22/11	1405	G	W	5	X	X									
BMW-0119-072011	8/22/11	1415	G	W	5	X	X									
AMW-0123-072011	8/22/11	1445	G	W	5	X	X									
BMW-0123-072011	8/22/11	1455	G	W	5	X	X									
AMW-0120-072011	8/22/11	1530	G	W	5	X	X									
BMW-0120-072011	8/22/11	1540	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lum	ICR	8-23-11 1800	Fedex 7974	4202 2460	
Relinquished by:	Company:	Date/Time:	Received by:	Company: TH	Date/Time: 8/24/11 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR SE MW

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-22-11	COC No: 082211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
DMW-0120-072011	8/22/11	1550	G	W	5	X	X									
EMW-0120-072011	8/22/11	1600	G	W	5	X	X									
AMW-0121-072011	8/23/11	0805	G	W	5	X	X									
BMW-0121-072011	8/23/11	0815	G	W	5	X	X									
CMW-0121-072011	8/23/11	0825	G	W	5	X	X									
AMW-0125-072011	8/23/11	0855	G	W	5	X	X									
BMW-0125-072011	8/23/11	0905	G	W	5	X	X									
CMW-2125-072011	8/23/11	0905	G	W	5	X	X									
DMW-0125-072011	8/23/11	0925	G	W	5	X	X									
AMW-0124-072011	8/23/11	1005	G	W	5	X	X									
BMW-0124-072011	8/23/11	1015	G	W	5	X	X									
BMW-2124-072011	8/23/11	1015	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Pay Lance EM	ICR	1800 8-23-11	Fed-ex	7974 4202	2460
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/24/11 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd Qtr MW Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
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Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-23-11	COC No: 082211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No
Lakewood, CO 80401	Calendar (C) or Work Days (W)			5447.002
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
DMW-0124-072011	8/23/11	1035	G	W	5	X	X									
AMW-0126-072011	8/23/11	1110	G	W	5	X	X									
BMW-0126-072011	8/23/11	1120	G	W	5	X	X									
DMW-0126-072011	8/23/11	1130	G	W	5	X	X									
AMW-0127-072011	8/23/11	1210	G	W	5	X	X									
BMW-0127-072011	8/23/11	1220	G	W	5	X	X									
EMW-0127-072011	8/23/11	1230	G	W	5	X	X									
AMW-0134-072011	8/23/11	1315	G	W	3	X										
BMW-0134-072011	8/23/11	1325	G	W	3	X										
DMW-0134-072011	8/23/11	1335	G	W	3	X										
DMW-0134-072011 MS	8/23/11	1335	G	W	3	X										
DMW-0134-072011 MSD	8/23/11	1335	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lowe	ICR	8-23-11 1800	Fed-Ex 7974	4202	2960
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/24/11 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
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outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-23-11	COC No: 082211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0135-072011	8/23/11	1410	G	W	3	X										
BMW-0135-072011	8/23/11	1420	G	W	3	X										
DMW-0135-072011	8/23/11	1430	G	W	3	X										
AMW-0133-072011	8/23/11	1500	G	W	3	X										
CMW-0133-072011	8/23/11	1510	G	W	3	X										
BMW-0133-072011 MS	8/23/11	1510	G	W	3	X										
BMW-0133-072011 MSD	8/23/11	1510	G	W	3	X										
DMW-0133-072011	8/23/11	1520	G	W	3	X										
AMW-0136-072011	8/23/11	1555	G	W	3	X										
BMW-0136-072011	8/23/11	1600	G	W	3	X										
DMW-0136-072011	8/23/11	1605	G	W	3	X										
EMW-0136-072011	8/23/11	1615	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lum	ECC	8-23-11 1800	Fed-Ex 7974	4202	2460
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/24/11 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd Qtr MW sampling

estAmerica Burlington
Community Drive
ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
303) 298-7607 Phone	TAT if different from Below			
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
DMW-0137-072011	8/24/11	0810	G	W	3	X										
TRB-2137-072011	8/24/11	0810	G	W	2	X										
CMW-0137-072011	8/24/11	0820	G	W	3	X										
DMW-0137-072011	8/24/11	0830	G	W	3	X										
EMW-0137-072011	8/24/11	0840	G	W	3	X										
AMW-0139-072011	8/24/11	0915	G	W	3	X										
BMW-0139-072011	8/24/11	0925	G	W	3	X										
AMW-0138-072011	8/24/11	0945	G	W	3	X										
BMW-0138-072011	8/24/11	0955	G	W	3	X										
AMW-024-072011	8/24/11	1035	G	W	3	X										
AMW-224-072011	8/24/11	1035	G	W	3	X										
BMW-024-072011	8/24/11	1045	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry [signature]	ICR	8-25-11	Fed-ex 7974	5050.	2059
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA	Date/Time: 8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd Qtr MW Sampling

estAmerica Burlington
Community Drive
ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
03) 298-7607 Phone	TAT if different from Below			SDG No.
03) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
BMW-024-072011MS	8/24/11	1045	G	W	3	X										
BMW-024-072011 MSD	8/24/11	1045	G	W	3	X										
EMW-0142-072011	8/24/11	1115	G	W	3	X										
AMW-0104-072011	8/24/11	1150	G	W	3	X										
BMW-0104-072011	8/24/11	1155	G	W	3	X										
DMW-0104-072011	8/24/11	1205	G	W	~~3~~ 1	X										
OMW-0104-072011	8/24/11	1210	G	W	3	X										
AMW-0111-072011	8/24/11	1235	G	W	3	X										
BMW-0111-072011	8/24/11	1240	G	W	3	X										
BMW-0211-072011	8/24/11	1240	G	W	3	X										
OMW-0111-072011	8/24/11	1255	G	W	3	X										
AMW-0109-072011	8/24/11	1340	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee Ell	ICR	8-25-11	Fed-Ex 7974 5050		2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
60 Community Drive
Suite 11
South Burlington, VT 5403
Phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr mw sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-2109-072011	8/24/11	1340	G	W	3	X										
BMW-0109-072011	8/24/11	1350	G	W	3	X										
BMW-2109-072011	8/24/11	1350	G	W	3	X										
BMW-0109-072011 MS	8/24/11	1350	G	W	3	X										
BMW-0109-072011 MSD	8/24/11	1350	G	W	3	X										
OMW-0109-072011	8/24/11	1410	G	W	3	X										
~~BMW-0114-072011~~	~~8/24/11~~	~~1455~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
~~BMW-0114-072011~~	~~8/24/11~~	~~1505~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
~~DMW-0114-072011~~	~~8/24/11~~	~~1515~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
AMW-0105-072011	8/24/11	1550	G	W	3	X										
AMW-2105-072011	8/24/11	1550	G	W	3	X										
BMW-0105-072011	8/24/11	1600	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee Hill	ECC	8-25-11	Fed-ex 7974	5050	2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR mw Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Bmw-0105-072011 MS	8-24-11	1600	G	W	3	X										
Bmw-0105-072011 MSD	8-24-11	1600	G	W	3	X										
Bmw-0105-072011	8-24-11	1610	G	W	3	X										
Bmw-0153-072011 LF	8-25-11	0750	G	W	3	X										
Amw-0154-072011 LF	8-25-11	0850	G	W	5	X	X									
Bmw-2153-072011	8-25-11	0815	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	8-25-11	Fed-ex 7974 5050		2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-25-11	COC No 082511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No. ~~5447.002~~
(303) 296-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-096-072011	8/25/11	0950	G	W	5	X	X									
BMW-096-072011	8/25/11	1000	G	W	5	X	X									
DMW-096-072011	8/25/11	1010	G	W	5	X	X									
AMW-082-072011	8/25/11	1040	G	W	5	X	X									
BMW-082-072011	8/25/11	1050	G	W	5	X	X									
DMW-082-072011	8/25/11	1100	G	W	5	X	X									
AMW-095-072011	8/25/11	1130	G	W	5	X	X									
BMW-095-072011	8/25/11	1140	G	W	5	X	X									
DMW-095-072011	8/25/11	1150	G	W	5	X	X									
AMW-020-072011	8/25/11	1220	G	W	5	X	X									
BMW-020-072011	8/25/11	1230	G	W	5	X	X									
CMW-020-072011	8/25/11	1240	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lowell	FCL	8-25-11 1800	Fed-Ex 7974 5281		5612
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW sampling

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-25-11	COC No: 082511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-081-072011	8/25/11	1325	G	W	5	X	X									
BMW-081-072011	8/25/11	1335	G	W	5	X	X									
DMW-081-072011	8/25/11	1345	G	W	5	X	X									
AMW-061-072011	8/25/11	1415	G	W	5	X	X									
BMW-061-072011	8/25/11	1425	G	W	5	X	X									
DMW-061-072011	8/25/11	1435	G	W	5	X	X									
AMW-0101-072011	8/25/11	1500	G	W	5	X	X									
BMW-0101-072011	8/25/11	1510	G	W	5	X	X									
BMW-2101-072011	8/25/11	1510	G	W	5	X	X									
DMW-0101-072011	8/25/11	1530	G	W	5	X	X									
TRB-2153-072011	8/25/11	0750	G	W	2	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee	ECC	8-25-11 1800	FedEx 7974 5281		5612
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3 ~~BA~~ Qtr MW Sampling

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ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-0137-072011	8/24/11	0810	G	W	3	X										
TRB-2137-072011	8/24/11	0810	G	W	2	X										
~~B~~CMW-0137-072011	8/24/11	0820	G	W	3	X										
D~~A~~MW-0137-072011	8/24/11	0830	G	W	3	X										
E~~F~~MW-0137-072011	8/24/11	0840	G	W	3	X										
A~~M~~W-0139-072011	8/24/11	0915	G	W	3	X										
B~~C~~MW-0139-072011	8/24/11	0925	G	W	3	X										
AMW-0138-072011	8/24/11	0945	G	W	3	X										
BMW-0138-072011	8/24/11	0955	G	W	3	X										
AMW-024-072011	8/24/11	1035	G	W	3	X										
AMW-224-072011	8/24/11	1035	G	W	3	X										
BMW-024-072011	8/24/11	1045	G	W	3	X										

Page 5 of 5

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lowell	ICR	8-25-11	Fed-ex 7974	5050.	2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR MW Sampling

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outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
BMW-024-072011MS	8/24/11	1045	G	W	3	X										
BMW-024-072011 MSD	8/24/11	1045	G	W	3	X										
EMW-0142-072011	8/24/11	1115	G	W	3	X										
AMW-0104-072011	8/24/11	1150	G	W	3	X										
BMW-0104-072011	8/24/11	1155	G	W	3	X										
DMW-0104-072011	8/24/11	1205	G	W	~~3~~ 1	X										
OMW-0104-072011	8/24/11	1210	G	W	3	X										
AMW-0111-072011	8/24/11	1235	G	W	3	X										
BMW-0111-072011	8/24/11	1240	G	W	3	X										
BMW-0211-072011	8/24/11	1240	G	W	3	X										
OMW-0111-072011	8/24/11	1255	G	W	3	X										
AMW-0109-072011	8/24/11	1340	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee Elk	ICR	8-25-11	Fed-Ex 7974 5050		2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr mw sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			
303) 298-7607 Phone	TAT if different from Below			SDG No.
303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-2109-072011	8/24/11	1340	G	W	3	X										
BMW-0109-072011	8/24/11	1350	G	W	3	X										
BMW-2109-072011	8/24/11	1350	G	W	3	X										
BMW-0109-072011 MS	8/24/11	1350	G	W	3	X										
BMW-0109-072011 MSD	8/24/11	1350	G	W	3	X										
OMW-0109-072011	8/24/11	1410	G	W	3	X										
~~BMW-0114-072011~~	~~8/24/11~~	~~1455~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
~~BMW-0114-072011~~ (T4)	~~8/24/11~~	~~1505~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
~~DMW-0114-072011~~	~~8/24/11~~	~~1515~~	~~G~~	~~W~~	~~5~~	~~X~~	~~X~~									
AMW-0105-072011	8/24/11	1550	G	W	3	X										
AMW-2105-072011	8/24/11	1550	G	W	3	X										
BMW-0105-072011	8/24/11	1600	G	W	3	X										

Page 54 of 86

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee [illegible]	ICR	8-25-11	Fed-ex 7974	5050	2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			[illegible]	TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR mw Sampling

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-24-11	COC No: 082411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
Bmw-0105-072011 MS	8-24-11	1600	G	W	3	X										
Bmw-0105-072011 MSD	8-24-11	1600	G	W	3	X										
Bmw-0105-072011	8-24-11	1610	G	W	3	X										
Bmw-0153-072011 LF	8-25-11	0750	G	W	3	X										
Bmw-0154-072011 LF	8-25-11	0850	G	W	5	X	X									
RT N-2153-072011	8-25-11	0815	G	W	5	X	X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	8-25-11	Fed-ex 7974 5050		2059
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

'estAmerica Burlington
) Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd Qtr MW Sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-25-11	COC No: 682511
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			SDG No. ~~5447.002~~
303) 298-7607 Phone	TAT if different from Below			
303) 296-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-096-072011	8/25/11	0950	G	W	5	X	X									
BMW-096-072011	8/25/11	1000	G	W	5	X	X									
DMW-096-072011	8/25/11	1010	G	W	5	X	X									
AMW-082-072011	8/25/11	1040	G	W	5	X	X									
BMW-082-072011	8/25/11	1050	G	W	5	X	X									
DMW-082-072011	8/25/11	1100	G	W	5	X	X									
AMW-095-072011	8/25/11	1130	G	W	5	X	X									
BMW-095-072011	8/25/11	1140	G	W	5	X	X									
DMW-095-072011	8/25/11	1150	G	W	5	X	X									
AMW-020-072011	8/25/11	1220	G	W	5	X	X									
BMW-020-072011	8/25/11	1230	G	W	5	X	X									
CMW-020-072011	8/25/11	1240	G	W	5	X	X									

Preservation Used: 1=Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lucille	FCL	8-25-11 1800	Fed-ex 79	74 5281	5612
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR MW sampling

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-25-11	COC No: 082511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
AMW-081-072011	8/25/11	1325	G	W	5	X	X									
BMW-081-072011	8/25/11	1335	G	W	5	X	X									
DMW-081-072011	8/25/11	1345	G	W	5	X	X									
AMW-061-072011	8/25/11	1415	G	W	5	X	X									
BMW-061-072011	8/25/11	1425	G	W	5	X	X									
DMW-061-072011	8/25/11	1435	G	W	5	X	X									
AMW-0101-072011	8/25/11	1500	G	W	5	X	X									
BMW-0101-072011	8/25/11	1510	G	W	5	X	X									
BMW-2101-072011	8/25/11	1510	G	W	5	X	X									
DMW-0101-072011	8/25/11	1530	G	W	5	X	X									
TRB-2153-072011	8/25/11	0750	G	W	2	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Perry Lee GM	FCR	8-25-11 1800	FCR-FX 79	74 5281	3612
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/26/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR SE 2011

estAmerica Burlington
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uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 8-29-11	COC No: 082911
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 1 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
03) 298-7607 Phone	TAT if different from Below			
03) 298-7837 FAX	☐ 3 weeks			
roject Name: FNOP 5447.002	☐ 2 weeks			
ite: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-2114-072011	8-29-11	1045	G	W	2	X										
Amw-0114-072011	8-29-11	1045	G	W	5	X	X									
Bmw-0114-072011	8-29-11	1055	G	W	5	X	X									
Dmw-0114-072011	8-29-11	1110	G	W	5	X	X									

Page 201 of 293

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECL	1500 8-29-11	Fed-ex 7974	5963	9310
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	8/30/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Appendix B
Field Forms

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Location Mead Farm Date 7-12-11

Project / Client 3rd QTR SE 2011

mw - Sampling Event

1 day 0 HNL

Sunny 75°F wind 10-20

0940 Setting up on mw - 116 cluster.

0945 mw-116 B 3 vol's / 2 Exp's

1005 mw-116 D 3 vol's / 2 Exp's wl-5.23

1015 mw-116A 3 vol's / 2 Exp's wl-5.28

1030 mw - 158 cluster

1035 mw-158 A 3 vol's / 2 Exp's 2.30 wl

1050 mw-158 B 3 vol's / 2 Exp's 2.00 wl

1100 mw-158 D 3 vol's / 2 Exp's 2.28 wl

1115 Heading to Plant.

Helping David with Pump Test

1430 Setting up at cluster mw-158 for Low Flow.

mw-158 A Reel# 111111 / Pump 12061

2" well non-ded. Pump.

3 vol's 8260 B

OTW	pH	Temp	Cond	Turb
1.96	5.40	14.66	1.084	106

Redox	DO
144.6	.62

Location Date 7-12-11

Project / Client

Continued

mw-158B Reel# 111111 / Pump 12061

1500 2" well NON-ded. Pump.

3 vol's 8260B

OTW	pH	Temp	Cond
1.58	6.10	14.76	.610

Turb	Redox	DO
29.3	104.5	.31

mw-158D Reel# 111111 / Pump 12061

1600 2" well NON-ded. Pump.

3 vol's / 8260 B

OTW	pH	Temp	Cond
2.01	5.70	14.57	1.493

Turb	Redox	DO
361	119.9	.28

1430 Back at Plant.

Unloading Eqip.

All Samples are in fridgerator

Reels Have been decomed Between wells

Location Mead FNOP Date 7-13-11

Project / Client US ACE

Low flow Sampling 3rd QTR 2011

Tony Hinz (ECC)
Cloudy 81°F

0655 On site
0700 Health and Safety meeting
0700 Calibrating YSI
0730 Packing truck
0800 Heading to mw-100 cluster
0805 Setting up on mw-100A
mw-100A / R-11275 / P-11924
Amw-0100-072011
2" well non-ded. / pump
3 voc's / 2 Exp's 8260B / 8330
IDTW 54.75

DTW	pH	Temp	Cond.
54.75	5.26	14.56	.317

Turb	Redox	DO
2.96	151.6	3.62

0835 mw-100B / R11275 / 11924
Bmw 0100-072011
6 voc's / 4 Exp's 8260B / 8330
2" well NON. Ded. Pump
IDTW 54.82

Location Date 7-13-11

Project / Client

Continued

DTW	pH	Temp	Cond
54.85	5.94	14.09	.287

Turb	Redox	DO
597	144.4	6.61

0910 mw-100D / R11275 / 11924
Dmw-0100-072011
2" well non. ded. pump
3 voc's / 2 Exp's
IDTW 54.92

DTW	pH	Cond	Temp.
54.95	6.38	.319	14.84

Redox	Turb	DO
137.5	2.18	5.14

0950 Setting up on mw-85 cluster
mw-85A / R 11275 / P-11924
Amw-085-072011
2" well non. ded. pump
3 voc's / 2 Exp's
IDTW 44.20

DTW	pH	Temp	Cond
44.31	6.20	14.38	.297

Turb	Redox	DO
1.86	151.7	4.88

Location _____ Date 7-13-11

Project / Client _____

Continued

1025 [mw-85B] R.11275 / P11424

Bmw-085-072011

3 voc's / 2 EXP's 8260B / 8330

2" well Non. Ded / Pump

IDTW 43.49

DTW	PH	Temp	Cond
44.04	5.52	13.82	.301

Turb	Redox	DO
40.0	174.8	4.84

1100 Setting up on [mw-85D]

Dmw-085-072011

3 voc's / 2 EXP's 8260B / 8330

2" well None Ded. / Pump

IDTW 44.50

DTW	PH	Temp	Cond.
44.50	5.81	14.37	.324

Turb	Redox	DO
1.56	171.8	4.16

Location Mead FAAP Date 7-13-11

Project / Client USACE

SWS 3rd QTR SE 2011

Tony Hiz (ECC)

1230

SCW-04

SCW-004-072011

2 EXP / 3 voc's

8260B / 8330

1240 SCW-05

SCW-005-072011

2 EXP / 3 voc's

8260B / 8330

1255 SCW-06

SCW-006-072011

SCW-206-072011

4 EXP's / 6 voc's

8330 / 8260B

1310 SW-12

SW-012-072011

2 EXP / 3 voc's

8260B / 8330

Location Mead FNOP Date 7/18/2011

Project / Client ECC

3rd Qtr monitor well sampling

Percy Lane Elk - FCR
Sunny 80°F
0800 At main plant
safety meeting, Job prep
0900 mobilize to [MW 159A & B]
0915 At [MW 159 A & B] Hydro Sleeve
tether Run over By
mower. Could not collect
sample. Hydrasleeve still
in MW. Informed Tody
0935 of problem.
0935 mobilize to [MW-154A & B]
0940 At MW-[154A & B]
0950 set up @ [154A & B]
0955 collect samples
MW-154A (3-VOCs)
MW-154A 2-RDX
set up @ ~~15~~ PIE [MW-154B]
1005 Collect samples
MW-154B (3-VOCs)
MW-154B (2-RDX)
1020 mob to [MW-155 A & B]
1035 Set up @ [MW-155 A & B]

Location Mead FNOP Date 7/18/11

Project / Client ECC

Sunny hot 90°F (continued)

3rd QTR MW Sampling

1040 collect samples
AMW-0155 (3-VOCs)
AMW-0155 (2-RDX)
AMW-2155 (3-VOCs)
AMW-2155 (2-RDX)
EMW-0155 (3-VOCs)
EMW-0155 ~~MS~~ PIE (2-RDX)
EMW-0155 MS (3-VOCs)
EMW-0155 MS (2-RDX)
EMW-0155 MSD (3-VOCs)
EMW-0155 MSD (1-RDX)
1110 mob to MW-[157 A & B]
1130 At [MW-157 A & B]
1135 set up @ [MW-157 A]
1140 Collect samples
AMW-0157 (3-VOCs)
AMW-0157 (2-RDX)
1155 collect samples
BMW-0157 (3-VOCs)
BMW-0157 (2-RDX)
1210 mob to [MW-156 A & B]
1215 At [MW-156 A & B]
Grading Road and ditch

Location mead FNOP Date 7/18/2011

Project / Client ECC

Sunny hot 94° F (Continued)

3rd Qtr mw sampling

At mw-156A & B. Cannot access well

1220 mob to mw-153A & B

1230 At mw-153A & B

1230 Set up @ mw-153A

1235 Collect samples

Amw-0153 (3-VOCs)

Amw-0153 (2-RDX ~~VOCs~~ PID)

1245 Collect samples

Bmw-0153 (3-VOCs)

Bmw-0153 (2-RDX)

1300 mob to mw-152B

1315 At mw-152B

1320 Set up @ mw-152B

1320 Collect samples

Bmw-0152 (3-VOCs)

Bmw-0152 (2-RDX ~~VOCs~~ PID)

1330 mob to mw-151 A & B

1335 Set up @ mw-151A

1340 Collect samples

Amw-0151 (3-VOCs)

Amw-0151 (2-RDX)

1350 Collect samples

Bmw-0151 (3-VOCs)

Location mead FNOP Date 7/18/11

Project / Client ECC

Sunny hot 95° F (Continued)

3rd Qtr mw sampling

~~1405~~ Bmw-0151 (2-RDX)

1405 mob to mw-148B

1420 At mw-148B

1425 Set up @ mw-148B

1430 Collect samples

Bmw-0148 (3-VOCs)

Bmw-0148 (2-RDX)

Bmw-2148 (3-VOCs)

~~1455~~ Bmw-2148 (2-RDX)

1455 mob to mw-143B

1500 At mw-143B

1505 Set up @ mw-143B

1510 Collect samples

Bmw-0143 (3-VOCs)

Bmw-0143 (2-RDX)

1520 mob to mw-149A

1525 At mw-149A

1530 Set up @ mw-149A

1535 Collect samples

Amw-0149 (3-VOCs)

Amw-0149 (2-RDX)

1545 mob to mw-150A & B

1555 At mw-150A & B

Location Mead FNOP Date 7/18/2011

Project / Client ECC (Continued)

Sunny hot 95°F

3rd QTR MW Sampling

1600 Set up on MW-150A

1605 Collect samples

AMW-0150 (3-VOCs)

AMW-0150 (2-RDX)

1615 Collect samples

BMW-0150 (3-VOC's)

BMW-0150 (2-RDX)

1630 mob back to main Plant

1645 At main plant, unload samples

Finalize paperwork

1700 End of Day

Location Date

Project / Client

Location Mead FNOP Date 7/18/2011

Project / Client ECC (Continued)

Sunny hot 95°F

3rd Qtr MW Sampling

1600 Set up on [MW-150A]

1605 Collect samples

AMW-0150 (3-VOCs)

AMW-0150 (2-RDX)

1615 Collect samples

BMW-0150 (3-VOCs)

BMW-0150 (2-RDX)

1630 mob back to main plant

1645 At main plant, unload samples

Finalize paperwork

1700 End of Day

PLE

Location FNOP-Mead Date 7/19/2011

Project / Client 5447.002/ECC

Sunny 80°F

3rd Qtr MW Sampling

Perry Lane Elk-JCR

0700 At main plant safety briefing, Job prep.

0810 mob to [MW-156A & B]

0825 At [MW-156A & B]

0825 Set up on [MW-156A]

0830 Collect samples

AMW-0156 (3-VOCs)

AMW-0156 (2-~~RDX~~ PLE) Explosives

0840 Collect samples

BMW-0156 (3-VOCs)

BMW-0156 (2-~~RDX~~ PLE) Explosives

BMW-2156 (3-VOCs)

BMW-2156 (2-~~RDX~~ PLE) Explosives

0900 mob to [MW-145A & E]

0915 At [MW-145A & E]

0920 Set up on [MW-145A]

0925 Collect samples

AMW-0145 (3-VOCs)

AMW-0145 (2-~~RDX~~ PLE) Explosives

0935 Collect samples

EMW-0145 (3-VOCs)

EMW-0145 (2-~~RDX~~) Explosives

Location ENOP-Mead Date 7/19/2014

Project / Client 5447.002 / ECC (continued)

80°F sunny

3rd Qtr MW Sampling

0945 mob to MW-144A & E

1000 At MW-144A & E

1005 Set up on MW-144A

1010 Collect samples

AMW-0144 (2-Explosives)

AMW-0144 (3-VOCs)

EMW-0144 (3-VOCs)

EMW-0144 (2-Explosives)

EMW-2144 (3-VOCs)

EMW-2144 (2-Explosives)

1040 mob to MW-141 A, B & E

1050 At MW-141 A, B, & E

1055 Set up on MW-141A

1100 Collect samples

AMW-0141 (3-VOCs)

AMW-0141 (2-Explosives)

1110 Collect samples

BMW-0141 (3-VOCs)

BMW-0141 (2-Explosives)

1120 Collect samples

EMW-0141 (3-VOCs)

EMW-0141 (2-Explosives)

1135 mob to MW-142A & E

1145 At MW-142A & E

1150 Set up on MW-142A

Location ENOP-Mead Date 7/19/2014

Project / Client 5447.002 / ECC (continued)

91°F sunny Hot

3rd Qtr MW Sampling

1155 Collect samples

AMW-0142 (3-VOCs)

AMW-0142 (2-Explosives)

1215 MW-142E stuck cannot ~~collect samples~~

1220 mob to MW-147A, B, & D

1235 At MW-147A, B, & D

1240 Set up on MW-147A

1245 Collect samples

AMW-0147 (3-VOCs)

AMW-0147 (2-Explosives)

1255 Collect samples

BMW-0147 (3-VOCs)

BMW-0147 (2-Explosives)

1305 Collect samples

DMW-0147 (3-VOCs)

DMW-0147 (2-Explosives)

1320 mob to MW-146A & B

1325 At MW-146A & B

1330 Set up on MW-146A

1335 Collect Samples

AMW-0146 (3-VOCs)

AMW-0146 (2-Explosives)

Location FNOP-mead Date 7/19/2011

Project / Client 5447.002 / ECC (continued)

92°F Sunny hot

3rd QTR MW sampling

1345 Collect samples

BMW-0146 (3-VOCs)

BMW-0146 (2-Explosives)

1400 mobilize back to main Plant.

1415 At Main Plant, unload samples and supplies store in Refrigerator Finalize Paperwork

1430 End of DAY

Location Date

Project / Client

Location FNOP-mead Date 7/19/2011

Project / Client 5447.002 / ECC (continued)

92°F sunny hot

3rd QTR MW sampling

1345 collect samples
BMW-0146 (3-VOCs)
BMW-0146 (2-Explosives)

1400 mobolize back to main Plant.

1415 At main Plant, unload samples and supplies store in Refrigerator
Finalize Paperwork

1430 End of DAY

Location FNOP-mead Date 7/22/2011

Project / Client 5447.002/ECC

78°F sunny

3rd QTR MW sampling
Percy Lone Elk - JCR

0730 At main plant. safety meeting
Job prep.

0750 mobolize to [MW-35A, B, & D]

0755 At [MW-35 A, B, & D] Well Cluster

0758 Deploy Hydrasleeve samplers in [MW-35A, B, & D]

0815 mobolize to [MW-130 A, B, & D]

0820 At [MW-130 A, B, & D]

0825 Deploy Hydra sleeve samplers in [MW-130 A, B, & D]

0845 mobolize to [MW-129 A, B, & D]

0850 At [MW-129, A, B, & D]

0855 Deploy Hydra sleeve samplers in [MW-129 A, B, & D]

0920 mob to [MW-131A, B, & D]

0930 At [MW-131A, B, & D]

0935 Deploy Hydra sleeve samplers in [MW-131A, B, & D]

0955 mobolize to [MW-118A, B]

1000 At [MW-118A, B]

1005 Deploy Hydra sleeve samplers in [MW-118A, B]

Location Enol-mead Date 7/22/2011

Project / Client 5447.002 / ECC

78° F Cloudy

3rd Qtr MW Sampling

1020 Mobolize to MW-132A,B,&D

1025 At MW-132A,B,&D

1030 Deploy Hydra sleeve samplers in MW-132A,B,&D out of Bottom weight's For Hydra sleeve samplers

1050 mobolize Back to main plant to pick up more Bottom weight's. for samplers

1100 At main plant pickup Bottom weight's For samplers

1105 mobolize back to MW-128A,B,&D

1115 At MW-128A,B,&D

1120 Deploy Hydra sleeve samplers in MW-128A,B,&D

1140 mobolize back to main plant

1150 At main plant. unload supplies.

1155 Finalize paperwork.

End of Day

Location Date

Project / Client

Location ENOP-mead Date 7/22/2011

Project / Client 5447.002 / ECC (continued)

78° F Cloudy

3rd Qtr MW Sampling

1020 Mobolize to [MW-132A,B,&D]

1025 At [MW-132A,B,&D]

1030 Deploy Hydra sleeve samplers in [MW-132A,B,&D] out of Bottom weight's For Hydra sleeve samplers

1050 mobolize Back to main plant to pick up more Bottom weight's for samplers

1100 At main plant pickup Bottom weight's For samplers

1105 mobolize back to [MW-128A,B,&D]

1115 At [MW-128A,B,&D]

1120 Deploy Hydra sleeve samplers in [MW-128A,B,&D]

1140 mobolize back to main plant.

1150 At main plant, unload supplies.

1155 Finalize paperwork.

1200 End of Day

Location ENOP-mead Date 7/25/2011

Project / Client 5447.002 / ECC

70° Cloudy, hazy

3rd Qtr MW Sampling

Percy Lone Elk - FCR

0800 At main plant, safety meeting, Job prep. Load supplies.

0825 mob to [MW-35A,B,&D]

0830 At [MW-35A,B,&D]

0835 Set up on [MW-35A]

0840 Collect samples

AMW-035 (3-VOCs)

AMW-035 (2-Explosives)

0850 Collect samples

BMW-035 (3-VOCs)

BMW-035 (2-Explosives)

BMW-235 (3-VOCs)

BMW-235 (2-Explosives)

0910 Collect samples

DMW-035 (3-VOCs)

DMW-035 (2-Explosives)

0925 mob to [MW-130A,B,&D]

0930 At [MW-130A,B,&D]

0930 Set up on [MW-130A]

0935 Collect samples

AMW-0130 (~~3-VOCs~~) (2-Explosives)

Location FNOP-Mead Date 7/25/11

Project / Client 5447.002 / ECC (continued)

76°F Sunny

3rd QTR MW Sampling

0945 BMW-0130 (2-Explosives)

0955 Collect Samples

DMW-0130 (2-Explosives)

1005 mob to MW-129A, B, & D

1010 At MW-129A, B, & D

1015 Set up on MW-129A

1020 Collect Samples

AMW-0129 (2-Explosives)

1030 Collect samples

BMW-0129 (2-Explosives)

BMW-0129 MS (2-Explosives)

BMW-0129 MSD (2-Explosives)

1045 Collect Samples

DMW-0129 (2-Explosives)

1055 mob to MW-131A, B, & D

1105 At MW-131A, B, & D

1110 Set up on MW-131A

1115 Collect Samples

AMW-0131 (2-Explosives)

1125 Collect Samples

BMW-0131 (2-Explosives)

1135 Collect Samples

DMW-0131 (2-Explosives)

Location FNOP-Mead Date 7/25/11

Project / Client 5447.002 / ECC (continued)

86°F Sunny

3rd QTR MW Sampling

1145 mob to MW-118A, B

1155 At MW-118A, B

1200 Set up on MW-118A

1205 Collect Samples

AMW-0118 (3-VOCs)

AMW-0118 (2-Explosives)

AMW-2118 (2-Explosives)

1225 Collect Samples

BMW-0118 (3-VOCs)

BMW-0118 (2-Explosives)

BMW-0118 MS (3-VOCs)

BMW-0118 MS (2-Explosives)

BMW-0118 MSD (3-VOCs)

BMW-0118 MSD (2-Explosives)

1300 mob to Main plant

1310 At Main plant, off Load samples and store in refrigerator.

1325 mob to MW-132A, B, & D

1335 At MW-132A, B, & D

1340 Set up on MW-132A

1345 Collect Samples

AMW-0132 (2-Explosives)

Location FNOP- Meard Date 7/25/4

Project / Client 5947.002/ ECC (continued)

87°F sunny

3rd Qtr mw sampling

1355 Collect samples
BMW-0132 (2-Explosives)

1405 Collect samples
DMW-0132 (2-Explosives)

1415 mob to [MW-128A, B, & D]

1420 At [MW-128A, B, & D]

1425 Set up on [MW-128A]

1430 Collect samples
AMW-0128 (2-Explosives)

1440 Collect samples
BMW-0128 (2-Explosives)

1450 Collect samples

1500 DMW-0128 (2-Explosives)

~~1455~~ mob back to main plant.

1510 At main plant. unload samples and store in refrigerator.

1515 Finalize paper work

1515 End of Day

PLE

Location Date

Project / Client

Location FNOP-mead Date 7/26/11

Project / Client 5447.002 / ECC (continued)

81° F sunny

3rd Qtr MW Sampling

0955 Head back to pickup

1000 At Pickup

1000 mob to [MW-110A, B, & D]

1005 At [MW-110A, B, & D]

1010 Deploy Hydra sleeve samplers in [MW-110A, B, & D]

[MW-110A] Has Data Logger in. Did not Deploy Hydra Sleeve sampler in [MW-110A]

1025 mob to [MW-108A, B, & D]

1030 At [MW-108A, B, & D]

1035 Deploy Hydra sleeve samplers in [MW-108, A, B, & D]

1050 mob to [MW-107A, B, & D]

1055 At [MW-107A, B, & D]

1100 Deploy Hydra sleeve samplers in [MW-107A, B, & D]

1115 mob to [MW-106A, B, & D]

1120 At [MW-106A, B, & D]

1120 Deploy Hydra sleeve samplers in [MW-106B, & D]

[MW-106A] Has Data Logger in. Did not Deploy Hydra sleeve

DLF

Location FNOP-mead Date 7/26/11

Project / Client 5447.002 / ECC (continued)

86° F sunny

3rd Qtr MW sampling

sampler in [MW-106A]

1135 mob to [MW-41A, B, & D]

1145 At [MW-41A, B, & D]

Deploy Hydra sleeve samplers in [MW-41, A, B, & D]

1205 mob to [MW-102A, B, & D]

1215 At [MW-102A, B, & D]

1220 Deploy Hydra sleeve samplers in [MW-102A, B, & D]

1235 mob to [MW-103A, B, & D]

1240 At [MW-103A, B, & D]

1245 Deploy Hydra sleeve samplers in [MW-103A, B, & D]

1305 mobolize back to [MW-106A]

Toby said to pull Data Logger Deploy Hydra sleeve sampler and put Back Data Logger

1315 At [MW-110A]

1320 Deploy Hydra sleeve sampler in [MW-110A]

1325 mob to [MW-106A]

1330 At [MW-106A]

1335 Deploy Hydra sleeve sampler

DLF

Location FNOP-Mead Date 7/25/11

Project / Client 5947.002/ECC (continued)

87°F sunny

3rd Qtr MW Sampling

1355 Collect samples
BMW-0132 (2-Explosives)

1405 Collect samples
DMW-0132 (2-Explosives)

1415 mob to [MW-128A,B,&D]

1420 At [MW-128A,B,&D]

1425 Set up on [MW-128A]

1430 Collect samples
AMW-0128 (2-Explosives)

1440 Collect samples
BMW-0128 (2-Explosives)

1450 Collect samples
DMW-0128 (2-Explosives)

1500 ~~1455~~ mob back to main plant.

1510 At main plant. unload samples and store in refrigerator.

1515 Finalize paper work

1515 End of Day

PCE

Location FNOP-Mead Date 7/26/11

Project / Client 5947.002/ECC

72°F sunny

3rd Qtr MW Sampling
Percy Lone Elk - ICR

0800 At main plant, safety meeting, Job prep Load supplies.

0825 mob to [MW-117A,B,&D]

0830 Park on road side. walk through corn field to [MW-117A,B,&D]

0850 At [MW-117A,B,&D]

0850 Deploy Hydra sleeve samplers in [MW-117A,B,&D]

0905 Head back to pickup on roadside

0925 At pickup.

0925 mobolize to [MW-140A,B,&D]

0935 At [MW-140A,B,&D]

0940 Park on road side. walk through cornfield and bean field to [MW-140A,B &D]
Deploy Hydra sleeve samplers in [MW-140A,B] only.
[MW-140A] sleeve stuck would not go to bottom or could not pull back out.

NE

Location FNOP- Mead Date 7/26/2011

Project / Client 5447.002/ ECC (continued)

94°F Sunny

3rd Qtr MW sampling

in [MW-106A]

1345 mob back to main plant

1355 at main plant. unload Empty containers. Pick up more Hydra sleeve samplers and supplies.

1410 mob to [MW-104A, B, & D]

1420 at [MW-104A, B, & D]

1425 Deploy Hydra sleeve samplers in [MW-104A, B, & D]

1440 mob to [MW-111A, B]

1445 At [MW-111A, B]

1450 Deploy Hydra sleeve samplers in [MW-111A, B]

1505 mob to [MW-109A, B]

1510 At [MW-109A, B]

1515 Deploy Hydra sleeve samplers in [MW-109A, B]

1530 End of Day

Location Date

Project / Client

Location FNOP- Mead Date 7/26/2001

Project / Client 5447.002/ ECC (continued)

94°F Sunny

3rd Qtr MW sampling

in [MW-106A]

1345 mob back to main plant

1355 At main plant. unload Empty containers.

Pick up more Hydra sleeve samplers and supplies.

1410 mob to [MW-104A, B, & D]

1420 At [MW-104 A, B, & D]

1425 Deploy Hydra sleeve samplers in [MW-104 A, B, & D]

1440 mob to [MW-111A, B]

1445 At [MW-111 A, B]

1450 Deploy Hydra sleeve samplers in [MW-111 A, B]

1505 mob to [MW-109 A, B]

1510 At [MW-109 A, B]

1515 Deploy Hydra sleeve samplers in [MW-109 A, B]

1530 End of Day

Location FNOP- Mead Date 7/27/2001

Project / Client 5447.002 / ECC

74°F sunny

3rd Qtr MW sampling

Percy Lane Elk - FCR

0730 At main plant, safety meeting, Job prep Load supplies.

0800 mob to [MW-117 A, B, & D]

0805 At [MW-117A, B, & D] road side

Park walk Through corn Field to [MW-117A, B, & D] to collect samples

0825 At [MW-117A, B, & D]

0830 Collect Samples

AMW-0117 (3-VOCs)

AMW-0117 (2-Explosives)

0840 Collect Samples

BMW-0117 (3-VOCs)

BMW-0117 (2-Explosives)

0850 Collect Samples

DMW-0117 (3-VOCs)

DMW-0117 (2-Explosives)

0905 Head back to pickup

0930 At Pickup

0935 mob to [MW-140 A, B,

0945 At [MW-140 A, B & D]

Location FNOP - Mead Date 7/27/11

Project / Client 5447.002 / ECC (continued)

77° F sunny

3rd Qtr MW Sampling

0945 Park on road side - walk through corn field and beam field to [MW-140A, B, & D]

0955 At [MW-140A, B, D, & O]

1000 Collect samples AMW-0140 (3-VOCs)

1010 Collect samples BMW-0140 (3-VOCs)

1020 Collect samples DMW-0140 (3-VOCs)

1030 Collect samples OMW-0140 (3-VOCs)

1040 Head back to pickup.

1050 mob back to main plant

1100 At main plant unload supplies.

1130 End of Day

PB

Location Date

Project / Client

Location FNOP-Mead Date 7/27/11

Project / Client 5447.002 / ECC (continued)

77° F sunny

3rd Qtr MW Sampling

0945 Park on road side - walk through corn field and bean field to [MW-140A, B, & D]

0955 At [MW-140A, B, D, & O]

1000 Collect samples AMW-0140 (3-VOCs)

1010 Collect samples BMW-0140 (3-VOCs)

1020 Collect samples DMW-0140 (3-VOCs)

1030 Collect samples OMW-0140 (3-VOCs)

1040 Head back to pickup.

1050 mob back to main plant

1100 At main plant unload supplies.

1130 End of Day

PH

Location FNOP-Mead Date 7/28/11

Project / Client 5447.002 / ECC

75° F Cloudy / Light rain

3rd Qtr MW Sampling

Percy Lone Elk - FCR

0730 At main plant, safety meeting, Job prep Load supplies

0755 mob to [MW-110A, B, & D]

0805 At [MW-110A, B, & D]

0810 Set up on [MW-110A]

0815 Collect samples AMW-0110 (3-VOCs) AMW-0110 (2-Explosives)

0825 Collect samples BMW-0110 (3-VOCs) BMW-0110 (2-Explosives)

0835 Collect samples DMW-0110 (3-VOCs) DMW-0110 (2-Explosives)

0850 mob to [MW-108A, B, & D]

0855 At [MW-108A, B, & D]

0855 Set up on [MW-108A]

0900 Collect samples AMW-0108 (3-VOCs) AMW-0108 (2-Explosives)

0910 Collect samples

Location FNOP - mead Date 7/28/11

Project / Client 5447.002 / ECC (continued)

77°F Cloudy

3rd QTR MW Sampling

BMW-0108 (3-VOCs)

BMW-0108 (2-Explosives)

0920 Collect samples

DMW-0108 (3-VOCs)

DMW-0108 (2-Explosives)

0930 mob to MW-107A,B,&D

0935 At MW-107A,B,&D

0940 Set up on MW-107A

0945 Collect samples

AMW-0107 (3-VOCs)

AMW-0107 (2-Explosives)

0955 Collect samples

BMW-0107 (3-VOCs)

BMW-0107 (2-Explosives)

1005 collect samples

DMW-0107 (3-VOCs)

DMW-0107 (2-Explosives)

1015 mob to MW-106A,B,&D

1020 At MW-106A,B,&D

1025 Set up on MW-106A

1030 Collect Samples

AMW-0106 (3-VOCs)

AMW-0106 (2-Explosives)

Location FNOP - mead Date 7/28/11

Project / Client 5447.002/ECC (continued)

78°F Cloudy / Light rain

3rd QTR MW Sampling

1040 collect samples

BMW-0106 (3-VOCs)

BMW-0106 (2-Explosives)

BMW-2106 (3-VOCs)

BMW-2106 (2-Explosives)

1055 Collect samples

DMW-0106 (3-VOCs)

DMW-0106 (2-Explosives)

1110 mob to MW-159A,B

1120 At MW-159A&B

1125 Set up on MW-159A

1130 Collect samples

AMW-0159 (3-VOCs)

AMW-0159 (2-Explosives)

1140 Collect samples

BMW-0159 (3-VOCs)

BMW-0159 (2-Explosives)

1155 mob to MW-41A,B,&D

1205 At MW-41A,B,&D

No Labels for MW-41A,B&D

1220 mobolize back to main plant to pick up Labels

1230 At main Plant, Pickup Labels

Location FNOP-mound Date 7/28/4

Project / Client 5947.002/ECC (continued)

79°F Cloudy

3rd Qtr mw sampling

1235 mob back to [MW-41A, B, & D]

1245 At [MW-41A, B, & D]

Park on Road side walk Through Bean Field to [MW-41A, B, & D]

1255 At [MW-41A, B, & D]

1300 set up on [MW-41A]

1305 collect samples

AMW-041 (3-VOCs)

AMW-041 (2-Explosives)

1315 Collect samples

BMW-041 (3-VOCs)

BMW-041 (2-Explosives)

1325 Collect samples

DMW-041 (3-VOCs)

DMW-041 (2-Explosives)

1340 Head Back to Pickup at Pick up. Transfer samples to Big cooler. Load Equipment.

1355 mob to [MW-102A, B, & D]

1400 At [MW-102A, B, & D]

1405 set up on [MW-102A]

1410 Collect samples

DLE

Location FNOP-mound Date 7/28/4

Project / Client 5947.002/ECC (continued)

82° F Cloudy

3rd Qtr mw sampling

AMW-0102 (3-VOCs)

AMW-0102 (2-Explosives)

1420 Collect samples

BMW-0102 (3-VOCs)

BMW-0102 (2-Explosives)

BMW-2102 (3-VOCs)

BMW-2102 (2-Explosives)

1440 collect samples

DMW-0102 (3-VOCs)

DMW-0102 (2-Explosives)

1450 mob to [MW-103A, B, & D]

1455 At [MW-103A, B, & D]

1500 set up on [MW-103A]

1505 Collect samples

AMW-0103 (3-VOCs)

AMW-0103 (2-Explosives)

1515 collect samples

BMW-0103 (3-VOCs)

BMW-0103 (2-Explosives)

1525 Collect samples

DMW-0103 (3-VOCs)

DMW-0103 (2-Explosives)

1540 mob back to main Plant

DLE

Location FNGP-Mead Date 7/28/4

Project / Client 5747.002/ECC (continued)

85° F Cloudy

3rd GW MW sampling

1550 At main plant.
unload samples and supplies
1555 Finalize paperwork
1600 End of Day

PLP

Location Date

Project / Client

Location FNOP-Mead Date 7/28/11

Project / Client 5447.002/ECC (continued)

85°F Cloudy

3rd Qtr MW sampling

1550 At main plant.
unload samples and supplies
1555 Finalize paperwork
1600 End of Day

DLR

Location FNOP-Mead Date 7/29/2011

Project / Client 5447.002/ECC

73°F Cloudy

3rd Qtr monitor well sampling

Percy Lone Elk - JCR

0730 At main Plant, safety meeting. Job prep Load supplies
0750 Deploy Hydra sleeve samplers in [MW-100A, B, & D] 2" MW wells
0805 mob to [MW-88A, B, & D]
0815 At [MW-88A, B, & D] 2" MW well
0820 Deploy Hydra Sleeve samplers in [MW-88A, B, & D]
0840 mob to [MW-115A, B, & D]
0850 At [MW-115A, B, & D] 2" MW well
0855 Deploy Hydra Sleeve samplers in [MW-115A, B, & D]
0910 mob mob to [MW-38A, D]
0920 At [MW-38A, D] 2" MW well
0925 Deploy Hydra Sleeve samplers in [MW-38A, D]
0935 mob to [MW-46A, B, & D]
0945 At [MW-46A, B, & D] 2" MW well
0950 Deploy Hydra sleeve samplers in [MW-46A, B, & D]
1005 mob to [MW-112A, B]
1010 At [MW-112A, B] 2" [illegible]

Location FNOP-mead Date 7/29/2011

Project / Client 5447.002/ECC (continued)

78°F cloud Light rain

3rd Qtr mw sampling

1015 set up on [mw-112A]

1015 Deploy Hydra sleeve samplers in [mw-112A, B]

1025 mob to [mw-113A, B, & D]

1030 At [mw-113A, B, & D] 2" mw

1040 Deploy Hydra sleeve samplers in [mw-113A, B, & D]

1100 mob to [mw-86A, B, & D]

1110 At [mw-86A, B, & D] 2" mw

1115 Deploy Hydra sleeve samplers in [mw-86A, B & D]

1130 ~~Deploy~~ DLG mob to [mw-85A, B, & D]

1145 At [mw-85A, B, & D] 2" mw

Deploy Hydra sleeve samplers in [mw-85A, B, & D]

1200 mob to [mw-98A, B, & D]

1210 At [mw-98A, B, & D] 2" mw

1215 Deploy Hydra sleeve samplers in [mw-98A, B, & D]

1230 mob to [mw-84A, B, & D]

1235 At [mw-84A, B, & D] 2" mw

Deploy Hydra sleeve samplers in [mw-84A, B, & D]

Location FNOP-mead Date 7/29/2011

Project / Client 5447.002/ECC (continued)

81°F cloudy

3rd Qtr mw sampling

1255 mob to [mw-83A, B, & D]

1310 At [mw-83A, B, & D] 2" mw

1315 Deploy Hydra sleeve samplers in [mw-83A, B, & D]

1330 mob to [mw-97A, B, & D]

1340 At [mw-97A, B, & D] 2" mw

1345 Deploy Hydra sleev samplers in [mw-~~97A~~, B, & D]

1400 mob to main plant. out of Bottom & Top weights for Hydra sleeve samplers

1410 At main plant restock supplies.

1415 mob to Pivot Point for Toby. by [mw-116] to get meter reading for Toby

1435 meter reading # is [033802]

1445 mob back to main plant

1455 At main plant unload supplies

1455 Finalize paper

1500 End of Day

DLG

Location ENOP-mead Date 8/2/2011

Project / Client 5447.002/ECC

78°F sunny

3rd Qtr MW sampling

Percy Lane Elk - ICR

0800 At main plant, safety meeting, Job prep Load supplies

0830 mob to [MW-86A,B,&D]

0840 At [MW-86A,B,&D] 2" MW

Collect water samples with Hydra sleeve samplers from 2" MW.

0850 set up on [MW-86A]

0900 Collect samples

AMW-086 (3-VOCs) 8260B

AMW-086 (2-Explosives) 8330

0915 Collect samples

BMW-086 (3-VOCs) 8260

BMW-086 (2-Explosives) 8330

BMW-286 (3-VOCs/8260)

BMW-286 (2-Explosives) 8330

0935 Collect samples

DMW-086 (3-VOCs/8260)

DMW-086 (2-Explosives/8330)

0950 mob to [MW-88A,B,D]

1000 At [MW-88A,B,&D]

1005 Set up on [MW-88A]

Location ENOP-mead Date 8/2/11

Project / Client 5447.002/ECC (continued)

82°F sunny

3rd Qtr MW sampling

1010 Collect samples

AMW-088 (3-VOCs/8260)

AMW-088 (2-Explosives/8330)

1020 Collect samples

BMW-088 (3-VOCs/8260)

BMW-088 (2-Explosives/8330)

1030 Collect samples

DMW-088 (3-VOCs/8260)

DMW-088 (2-Explosives/8330)

1045 mob to [MW-038A,D]

1055 At [MW-38A,D]

1100 Set up on [MW-38A]

1105 Collect samples

AMW-038 (3-VOCs/8260)

AMW-038 (2-Explosives/8330)

AMW-238 (3-VOCs/8260)

AMW-238 (2-Explosives/8330)

1125 Collect samples

DMW-038 (3-VOCs/8260)

DMW-038 (2-Explosives/8330)

DMW-038 MS (3-VOCs/8260)

DMW-038 MS (2-Explosives/8330)

DMW-038 MSD (3-VOCs/8260)

Location FNOP - mead Date 8/2/14

Project / Client 5447.002 / ECC (continued)

88° F sunny Light Breeze

3rd Qtr mw sampling

Dmw-038MSD (1-Explosives/8330)

1200 mob to [mw-115 A, B, & D]

1210 At [mw-115 A, B, & D]

1215 set up on [mw-115 A]

1220 Collect samples

Amw-0115 (3-vocs/8260)

Amw-0115 (2-Explosives/8330)

1230 collect samples

Bmw-0115 (3-vocs/8260)

Bmw-0115 (2-Explosives/8330)

1240 Collect samples

Dmw-0115 (3-vocs/8260)

Dmw-0115 (2-Explosives/8330)

1255 mob to [mw-46 A, B, & D]

1305 At [mw-46 A, B, & D]

1310 set up on [mw-46A]

1315 collect samples

Amw-046 (3-vocs/8260)

Amw-046 (2-Explosives/8330)

Amw-046 (3-vocs) Amw-046 (2-Explosives) 8330

1325 collect samples

Bmw-046 (3-vocs/8260)

Bmw-046 (2-Explosives/8330)

Bmw-046MS (3-vocs/8260)

Location FNOP - mead Date 8/2/14

Project / Client 5447.002 / ECC (continued)

91° F Sunny Light Breeze / Cloudy

3rd Qtr mw sampling

Bmw-046MS (2-Explosives/8330)

Bmw-046MSD (3-vocs/8260)

Bmw-046MSD (1-Explosives/8330)

1400 Collect samples

Dmw-046 (3-vocs/8260)

Dmw-046 (2-Explosives/8330

1415 mob to [mw-112A, B]

1420 At [mw-112A, B]

1425 Set up on [mw-112A]

1430 collect samples

Amw-0112 (3-vocs/8260)

Amw-0112 (2-Explosives/8330)

1440 collect samples

Bmw-0112 (3-vocs/8260)

Bmw-0112 (2-Explosives/8330)

1450 mob to [mw-113A, B, & D]

1455 At [mw-113A, B, & D]

1500 set up on [mw-113A]

1505 collect samples

Amw-0113 (3-vocs/8260)

Amw-0113 (2-Explosives/8330)

1515 collect samples

Bmw-0113 (3-vocs/8260)

Location EWOP - Mead Date 8/2/11

Project / Client 447.002/ECC (continued)

93°F sunny / cloudy Light Breeze

3rd (DSR) GW sampling

BMW-0113 (2-Explosives/8330)

1525 Collect samples

DMW-0113 (3-VOCs/8260)

DMW-0113 (2-Explosives/8330)

1540 mob to main plant

1545 At main Plant

Unload samples, and supplies

Store samples in refrigerator

1555 Finalize paperwork

1600 End of Day

PIP

Location Date

Project / Client

Location ENOP-Mead Date 8/2/11

Project / Client 5447.002/ECC (continued)

93°F sunny / cloudy Light Breeze

3rd Qtr mw sampling

BMW-0113 (2-Explosives/8330)

1525 Collect samples

DMW-0113 (3-VOCs/8260)

DMW-0113 (2-Explosives/8330)

1540 mob to main plant

1545 At main Plant

Unload samples, and supplies

Store samples in refrigerator

1555 Finalize paperwork

1600 End of Day

PLP

Location ENOP-Mead Date 8/5/2011

Project / Client 5447.002 / ECC

70°F sunny

3rd Qtr mw sampling

Percy Lane Elk - JCR

0730 At main Plant, safety meeting, Job prep, Load supplies

0750 mob to [MW-100A,B,D]

0755 At [MW-100A,B,D] 2" mw

Collect water samples with Hydra sleeve samplers From 2" mw.

0800 Set up on [MW-100A]

0805 Collect samples

AMW-0100 (3-VOCs/8260)

AMW-0100 (2-Explosives/8330)

0815 Collect samples

BMW-0100 (3-VOCs/8260)

BMW-0100 (2-Explosives/8330)

BMW-2100 (3-VOCs/8260)

BMW-2100 (2-Explosives/8330)

0835 Collect samples

DMW-0100 (3-VOCs/8260)

DMW-0100 (2-Explosives/8330)

0850 mob to [MW-85A,B,D]

0855 At [MW-85A,B,D]

0900 Set up on [MW-85A]

Location FNOP-mead Date 8/3/2011

Project / Client 5447.002/ECC

75°F Sunny Light Breeze

3rd Qtr MW Sampling

0905 Collect samples

AMW-085 (3-VOCs/8260)

AMW-085 (2-Explosives/8330)

0915 Collect samples

BMW-085 (3-VOCs/8260)

BMW-085 (2-Explosives/8330)

0925 Collect samples

DMW-085 (3-VOCs/8260)

DMW-085 (2-Explosives/8330)

0940 mob to [MW-98A,B,D]

0945 at [MW-98A,B,D]

0955 set up on [MW-98A]

1000 Collect samples

AMW-098 (3-VOCs/8260)

AMW-098 (2-Explosives/8330)

AMW-298 (3-VOCs/8260)

AMW-298 (2-Explosives/8330)

1020 Collect samples

BMW-098 (3-VOCs/8260)

BMW-098 (2-Explosives/8330)

BMW-098 MS (3-VOCs/8260)

BMW-098 MS (2-Explosives/8330)

BMW-098 MSD (3-VOCs/8260)

DLF

Location FNOP-Mead Date 8/3/2011

Project / Client 5447.002/ECC (continued)

77°F Sunny Light Breeze

3rd Qtr MW Sampling

BMW-098 MSD (1-Explosives/8330)

1050 Collect samples

DMW-098 - (3-VOCs/8260)

DMW-098 (2-Explosives/8330)

1100 mob to [MW-84A,B,D]

1105 At [MW-84A,B,D]

1110 set up on [MW-84A]

1115 Collect samples

AMW-084 (3-VOCs/8260)

AMW-084 (2-Explosives/8330)

1125 Collect samples

BMW-084 (3-VOCs/8260)

BMW-084 (2-Explosives/8330)

1135 Collect samples

DMW-084 (3-VOCs/8260)

DMW-084 (2-Explosives/8330)

1150 mob to [MW-83A,B,D]

1200 At [MW-83A,B,D]

1205 set up on [MW-83A,B,D]

1210 Collect samples

AMW-083 (3-VOCs/8260)

AMW-083 (2-Explosives/8330)

1220 Collect samples

DLF

Location ENOP-mead Date 8/3/2011

Project / Client 5447.002/ECC (continued)

82° F sunny Light Breeze/Hot

3rd Qtr MW Sampling

Bmw-083 (3-VOCs/8260)

Bmw-083 (2-Explosives/8330)

1230 Collect Samples

Dmw-083 (3-VOCs/8260)

Dmw-083 (2-Explosives/8330)

1245 mob to [mw-97A, B, D]

1255 At [mw-97A, B, D]

1300 Set up on [mw-97A]

1305 Collect samples

Amw-097 (3-VOCs/8260)

Amw-097 (2-Explosives/8330)

1315 Collect samples

Bmw-097 (3-VOCs/8260)

Bmw-097 (2-Explosives/8330)

1325 Collect samples

Dmw-097 (3-VOCs/8260)

Dmw-097 (2-Explosives/8330)

1340 mob back to main Plant.

1345 At main Plant. unload samples - Store in refrigerator.

1400 Pick up Hydra Sleeve samplers

1405 mob to [mw-114A, B, D]

1420 At [mw-114A, B, D]

OTE

Location ENOP-mead Date 8/3/11

Project / Client 5447.002/ECC (continued)

85° F sunny Light Breeze/Hot

3rd Qtr MW sampling

Deploy Hydra Sleeve samplers in 2" monitor wells.

1425 Deploy Hydra Sleeve samplers in [mw-114A, B, & D]

1440 mob to [mw-96A, B, & D]

1500 At [mw-96A, B, & D]

1505 Deploy Hydra Sleeve samplers in [mw-96A, B, & D] 2" mw

1525 mob to [mw-20A, B, & C]

1530 At [mw-20A, B, & C]

1535 Deploy Hydra Sleeve samplers in [mw-20A, B, & C]

1550 mob back to main Plant.

1555 At main Plant unload supplies.

1600 Finalize paperwork

1600 End of Day

PIE

Location FNOP-mead Date 8/4/2011

Project / Client 5447.002/ECC

72°F Cloudy Lite Rain

3rd Qtr mw sampling

Percy Lone Elk - ICR

0800 At main Plant, safety meeting
Job prep. Load supplies

0830 mob to [mw-82A,B,D]

0840 At [mw-82A,B,D] 2" mw
Deploy Hydra sleeve samplers
in 2" monitor well's

0845 Deploy Hydra sleeve samplers
in [mw-82A,B,D]

0900 mob to [mw-95A,B,D]

0910 At [mw-95A,B,D] Raining hard

0910 wait a few minute's to see
if Rain Let's up. Down pour

0925 Deploy Hydra sleeve samplers
in [mw-95A,B,D]

0940 mob to [mw-94A,B,D]

0955 At [mw-94A,B,D] 2" mw

1000 Deploy Hydra sleeve samplers
in [mw-94A,B,D]

1020 mob to [mw-24A,B]

1035 At [mw-24A,B] 2" mw

1040 Deploy Hydra sleeve samplers
in [mw-24A,B]

Location FNOP-Mead Date 8/4/2011

Project / Client 5447.002/ECC (continued)

75°F Cloudy Raining off and on

3rd Qtr mw sampling

1055 mob to [mw-90A,B,D]

1110 At [mw-90A,B,D] 2" mw

1115 Deploy Hydra sleeve samplers
in [mw-90A,B,D]

1130 mob to [mw-91A,B,D]

1135 At [mw-91A,B,D] area 2" mw
can not find stickup's. Corn to
TALL. called Toby. Toby on site
Helping Look for stickup's.
Cannot Find stickup's. Toby
said he'll have to get GPS
For this one. Corn Just to
TALL.

1210 mob to [mw 81A,B,D]

1220 At [mw-81A,B,D] 2" mw

1225 Deploy Hydra sleeve samplers
in [mw-81A,B,D]

1240 mob to [mw-79A,B]

1245 At [mw-79A,B] 2" mw
Deploy Hydra sleeve samplers
in [mw-79A,B]

1300 mob to [mw-61A,B,D]

1310 At [mw-61A,B,D] 2" mw

Location FNOD-mead Date 8/4/2011

Project / Client 5447.002/ECC (continued)

82°F Cloudy, sunny, Lite Breeze

3rd Qtr mw sampling

1315 Deplay Hydra Sleeve Samplers in [mw-61 A, B, D]

1335 mob to [mw-101 A, B, D]

1345 At [mw-101 A, B, D]

1350 Deploy Hydra sleeve samplers in [mw-101 A, B, D]

1405 mob back to main plant.

1415 at main plant unload supplies and Empty totes. Pickup Gator.

1430 mob to [mw-105 A, B]

1440 At [mw-105 A, B] 2" mw

1445 Deploy Hydra sleeve samplers in [mw-105 A, B]

1455 mob back to main plant

1505 At main plant, unload supplies

1510 Finalize paper work

1515 End of Day

pl

Location Date

Project / Client

Location FNOP-mead Date 8/4/2011

Project / Client 5447.002/ECC (continued)

82°F Cloudy, sunny, Lite Breeze

3rd Qtr mw sampling

1315 Deploy Hydra Sleeve Samplers in [mw-61 A, B, D]

1335 mob to [mw-101 A, B, D]

1345 At [mw-101 A, B, D]

1350 Deploy Hydra sleeve samplers in [mw-101 A, B, D]

1405 mob back to main plant.

1415 At main plant unload supplies and Empty totes. Pickup Gator.

1430 mob to [mw-105 A, B]

1440 At [mw-105 A, B] 2" mw

1445 Deploy Hydra sleeve samplers in [mw-105 A, B]

1455 mob back to main plant

1505 At main plant, unload supplies

1510 Finalize paper work

1515 End of Day

p16

Location FNOP-Mead Date 8/8/2011

Project / Client 5447.002/ECC

70° F sunny/cloudy

3rd Qtr mw sampling

Percy Lone Elk - Ice

0800 At main Plant, Safety meeting Job prep. Load supplies

0825 mob to [mw122 A, B] 2" mw

Deploy Hydra Sleeve samplers in 2" monitor wells.

0840 Deploy Hydra Sleeve samplers in [mw-122 A, B]

0855 mob to [mw-123 A, B] 2" mw

0905 At [mw-123 A, B]

0910 Deploy Hydra sleeve samplers in [mw-123 A, B]

0925 mob to [mw-120 A, B, D, E] 2" mw

0935 At [mw-120 A, B, D, E]

0940 Deploy Hydra Sleeve samplers in [mw-120 A, B, D, E]

1000 mob to [mw-121 A, B, E] 2" mw

1010 At [mw-121 A, B, E]

1015 Deploy Hydra sleeve samplers in [mw-121 A, B, E]

1035 mob to [mw-125 A, B, D] 2" mw

1045 At [mw-125 A, B, D]

1050 Deploy Hydra sleeve samplers

Location FNOP-mead Date 8/8/2011

Project / Client 5447.002/ECC (continued)

75°F sunny Lite Breeze

3rd Qtr mw sampling

in [mw-125A,B,D]

1105 mob to [mw-119A,B]

1115 At [mw-119A,B] 2" mw

1120 Deploy Hydra Sleeve samplers in [mw-119A,B]

1135 mob to [mw-124A,B,D]

1150 At [mw-124A,B,D] 2" mw

1155 Deploy Hydra Sleeve samplers in [mw-124A,B,D]

1210 mob to [mw-126A,B,D] 2" mw

1225 At [mw-126A,B,D]

1230 Deploy Hydra Sleeve samplers in [mw-126A,B,D]

1250 mob to [mw-127A,B,E]

1305 At [mw-127A,B,E]

1310 Deploy Hydra sleeve samplers in [mw-127A,B,E]

[mw-127E] will not Deploy Down monitor well. Goes Down about 5' Then stops. Attempted several Times to Deploy Hydra sleeve sampler with no Luck.

Location FNOP-mead Date 8/8/2011

Project / Client 5447.002/ECC (continued)

84°F sunny, Clear, Lite Breeze.

3rd Qtr mw sampling

1335 mob back to main Plant to pick up more Tethers and supplies.

1350 At main plant, unload Empty Totes, Load supplies

1405 mob to [mw-134A,B,D] 2" mw

1420 At [mw-134A,B,D]

Deploy Hydra sleeve samplers in [mw-134A,B,D]

1440 mob to [mw-133A,B,D] 2" mw

1445 At [mw-133A,B,D]

1450 Deploy Hydra Sleeve samplers in [mw-133A,B,D]

1505 mob back to main plant.

1520 At main plant, unload supplies.

1525 finalize paper

1530 End of Day

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Appendix C
Reference Sheet
Data Validation Qualifiers
Drinking Water Standards

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Data Qualifiers and Drinking Water Standards Reference Sheet
Former Nebraska Ordnance Plant, Mead, Nebraska

Any qualifiers (i.e., U, J, or R) listed after a result are assigned during the data validation process. Data validation is a procedure which involves the review of quality control data provided by the laboratory. This review is followed by the assignment of data qualifiers (if necessary) which indicate the reliability of a result to the reader. Data validation is performed by a chemist employed outside of the laboratory or associated government installations to ensure accuracy in data reporting. A description of qualifiers is provided below.

No qualifier

- If a result has no assigned qualifier, the contaminant was detected, and the reader can be confident that the concentration is exact.

"U"

- A result followed by a "U" qualifier means that the contaminant was undetected, or not detected by the instrument.

"UJ"

- A result followed by a "UJ" qualifier means that the contaminant was not detected, but the associated detection level is not certain (estimated). For example, if a value is followed by a "UJ", the contaminant was not detected, but the associated detection level is in question. The detection level is in question because one or more of the laboratory quality control indicators do not meet acceptance criteria. The amount that the indicator fell outside of the criteria may be used as a rough estimate of how much the actual detection level differs from the stated one. Typically, this is a 10-30% difference.

"UR"

- A result followed by a "UR" qualifier means that the contaminant was not detected, but there is strong doubt that the associated detection level is accurate. For example, if a value is followed by a "UR", the contaminant was not detected, but the associated detection level is in strong doubt. The detection level is in doubt because results are unacceptable for a quality control indicator. In this case, the detection level cannot be estimated.

"J"

- A result followed by only a "J" qualifier means that the contaminant was detected, but there is some question that the stated concentration is exact. For example, if a result is "0.5 J", the contaminant was detected, but there is some question that the concentration is exactly 0.5. A "J" qualifier may be applied for two reasons: (1) the contaminant was detected below the reporting limit; or (2) the contaminant was detected, but one or more quality control indicators did not meet acceptance criteria. The reporting limit is equal to the concentration of the lowest standard used by the laboratory to calibrate the instrument. The reporting limit is the minimum concentration that can be stated with complete confidence.

“R”

- A result followed by only an “R” qualifier means that the contaminant was detected, but there is strong doubt that the concentration is exact. For example, if a result is “0.5 R”, the contaminant was detected, but there is strong doubt that the concentration is exactly 0.5. The concentration is in doubt because results are unacceptable for a quality control indicator. In this case, the detected concentration cannot be estimated. For comparison purposes, detected results are reported in the results letters with available Environmental Protection Agency drinking water standards. These standards include the maximum contaminant level (MCL) and various health advisories (HA). A description of the drinking water standards is provided below.

“MCL”

- The maximum contaminant level is the highest concentration of a contaminant that is allowed in drinking water. Maximum contaminant levels are enforceable Federal standards.

“HA”

- Health advisories provide estimates of acceptable drinking water concentrations for a chemical substance based on health effects information. Health advisories are not enforceable Federal standards, but serve as a technical guidance to assist Federal, State, and local officials.

Appendix D
Analytical Results on Compact Disc Summary Forms and Raw Data

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Appendix E

Quality Control Summary Report Third Quarter 2011 Water Supply Well Sampling Event, Former Nebraska Ordnance Plant (on CD)

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Regional Office

1746 Cole Boulevard
Building 21, Suite 350
Lakewood, CO 80401

Phone: 303.298.7607
Fax: 303.298.7837

October 4, 2011

U.S. Army Corps of Engineers, Kansas City District
Attn: Jerry Montgomery
601 East 12th Street
Kansas City, MO 64106-2896

Re: Transmittal of the Final Quality Control Summary Report
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska
Contract No. W912DQ-08-D-0001, Task Order No. 0002

Dear Mr. Montgomery:

ECC is hereby transmitting one electronic copy of the Final Quality Control Summary Report for the Third Quarter 2011 Water Supply Well Sampling Event at the former Nebraska Ordnance Plant, Mead, Nebraska.

Please contact Mr. Brady Bigelow or me if you require additional information.

Sincerely,

John Ryder
Project Chemist
ECC

Enclosures
cc: Ms. Kristine Stein (USACE)
Mr. Jason L'Ecuyer (USACE)
Mr. Bradley Brink (USACE)
Mr. Kirk Boese (USACE)
Mr. Brady Bigelow (ECC)
Mead Library

Corporate Office

1240 Bayshore Highway
Burlingame, CA 94010

Phone: 650.347.1555
Fax: 650.347.8789
www.ecc.net

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE: October 4, 2011	TRANSMITTAL NO. 2011-084

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by contractor)

Attn: Jerry Montgomery USACE, Kansas City District 601 E. 12th St. Kansas City, MO 64106-2896	FROM: John Ryder ECC 1746 Cole Blvd, Bldg 21, Lakewood, CO 80401	CONTRACT NO. W912DQ-08-D-0001, Task Order 0002	CHECK ONE: __X__ THIS IS A NEW TRANSMITTAL ____ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SECTION NO. (cover only one section with each transmittal)	PROJECT TITLE AND LOCATION: Groundwater Monitoring Program, Former Nebraska Ordnance Plant, Mead, Nebraska		CHECK ONE: ___ FIO __X__ For Govt. Approval

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)* *b.*	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction No. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*	FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruc. no. 6)* *h.*	FOR C E USE CODE *i.*
1	Quality Control Summary Report - Final		1 electronic					
	Third Quarter 2011 Water Supply Well Sampling Event							

REMARKS
Kristine Stein (USACE)
Jason L'Ecuyer (USACE)
Bradley Brink (USACE)
Kirk Boese (USACE)
Mead Library

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.
John Ryder, Denver Operations Group

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

FINAL
QUALITY CONTROL SUMMARY REPORT
THIRD QUARTER 2011

WATER SUPPLY WELL SAMPLING EVENT

FORMER NEBRASKA ORDNANCE PLANT
MEAD, NEBRASKA

Prepared for

United States Army Corps of Engineers
Kansas City District

October 2011

ECC
1746 Cole Boulevard, Suite 350
Lakewood, Colorado 80401

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Quality Control Summary Report
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant
Mead, Nebraska

1.0 INTRODUCTION

Water supply well (WSW) sampling was conducted between July 14 and 25, 2011 and on September 22, 2011 at the former Nebraska Ordnance Plant, Mead, Nebraska. All sampling activities were performed in accordance with the *Site Wide Work Plan, Support Services, Former Nebraska Ordnance Plant, Mead, Nebraska* (ECC, 2009). This Quality Control Summary Report (QCSR) presents a summary of the chemical data quality review for the Third Quarter 2011 WSW sampling event.

Samples were analyzed for one or all of the following constituents:

- Selected volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) Drinking Water Method 524.2;
- Selected explosives by EPA Method 8330; and
- Total suspended solids (TSS) by Method SM2540D.

The VOC analyses were performed by TestAmerica of Savannah, Georgia, and the explosive and TSS analyses were performed by TestAmerica of South Burlington, Vermont. A complete list of the water supply wells planned for sample collection, the corresponding sample identification (ID) numbers, and the requested analyses for each sampled well are presented in Table 1-1. Associated Chain of Custody (COC) Records are included as Appendix A. Appendix B presents an explanation of data validation qualifiers and drinking water standards and Appendix C contains a compact disk with all analytical data, including summary forms and raw data, for the Third Quarter 2011 WSW sampling event.

2.0 SAMPLING ACTIVITIES

Seventy-three sample locations were sampled for chemical analyses during the Third Quarter 2011 WSW sampling event. Eight field duplicate samples, four matrix spike (MS) / matrix spike duplicate (MSD) sample pairs, and five trip blanks were also collected. See Section 4.1 Field Completeness for additional information.

The sampling location at WSW-116 was not accessible to the field crew at the time of sampling and a sample compliant with work plan requirements could not be obtained. Samples collected from the before granular activated carbon sampling location at WSW-52C-B in July 2011 were non-detect for all site specific compounds. WSW-52C-B is an interior plume location where detects are expected. This location was resampled in September 2011 due to the suspect results. The September 2011 sampling results were more representative of this interior plume location and will be reported.

Table 2-1 provides the following information listed by date sampled and laboratory sample ID for ease of comparison to laboratory data packages and field notes:

- A cross-reference between laboratory sample IDs and field sample IDs;
- QC (Quality Control) split sample information;
- MS/MSD sample information;
- Dates of sample collection and sample receipt by the laboratory;
- COC numbers;
- Sample delivery group (SDG) numbers; and
- Requested analyses.

3.0 DATA QUALITY EVALUATION PROCEDURES

The following subsections present the data quality evaluation procedures performed in accordance with the *Mead Validation Guidelines*, (ECC, 2007), approved by United States Army Corps of Engineers (USACE) in 2007. Both project specified limits and laboratory control limits were used to assess data quality. Data quality evaluation results and results qualifications are presented in Table 3-1 according to field sample ID. QC outliers are presented in Table 3-2.

3.1 Sample Receipt at the Laboratory

All sample transfer requirements were met for samples received at the laboratory. No data required qualification based on sample condition. The samples coolers were received within the recommended temperature range of 4 ± 2 °C. Sample preservation was not indicated on the COC. The laboratory indicated that the samples were received in good condition (with the exception noted below) and the VOC preservations were verified.

- One of two 1-liter bottles were received broken for samples 0100-072011, 050A-072011, 051-072011. The remaining 1-liter bottle was used for analysis and no qualifications were required.

3.2 Holding Times

All extractions and analyses were performed within method-specific holding times.

3.3 Tuning and Calibration

According to the *Mead Validation Guidelines* (ECC, 2007), assessment of tune and calibration information is assessed using the laboratory case-narrative or summary forms. No deviations for the calibration and tuning of pertinent instrumentation were reported by the laboratory in the case narrative and evaluation of the calibration summary forms indicated that all project criteria were met.

3.4 Laboratory Method Blanks

A laboratory method blank is an analyte-free matrix that is carried through the entire preparation and analysis sequence for the purpose of identifying potential contamination introduced during preparation and analysis. Method blanks were analyzed for each sample batch for all analyses. In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections are qualified as non-detect (U) if the concentration in the sample is less than 5 times the concentration in the associated blank. For common laboratory contaminants, detections are qualified as non-detect (U) if the concentration in the sample is less than 10 times the concentration in the associated blank. Sample results that are either non-detect (U), or greater than 5 or 10 times the blank result do not require qualification.

There were no detections of target analytes in the laboratory method blanks.

3.5 Trip Blanks

A trip blank is an analyte-free matrix that accompanies samples through the sample collection and transportation process to identify potential VOC contamination. In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections are qualified as non-detect (U) if the concentration in the sample is less than 5 times the concentration in the associated blank (10 times for common laboratory contaminants). Sample results that are either non-detect (U), or greater than 5 times the blank result do not require qualification.

There were no detections of target analytes in the volatile trip blanks.

3.6 Surrogates

Surrogates are compounds not normally found in the environment that are added (spiked) into samples prior to extraction (for extractable methods) or prior to analysis (for non-extractable methods). The percent recovery (% REC) of each surrogate is used to assess the success of the sample preparation process for an individual sample. Surrogates were analyzed for each sample batch for VOCs and explosives.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects and UJ-coded for non-detects if the surrogate % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects.

An elevated % REC for the explosive surrogate compound 1,2-dinitrobenzene on the primary column in one sample resulted in the qualification (J) for all detected explosive compounds in the sample. Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-3 presents the explosive QC outliers and associated samples for all assigned qualifiers.

3.7 Laboratory Control Samples and Laboratory Control Sample Duplicates

A laboratory control sample (LCS) consists of a matrix, similar to that of the field sample, which is spiked with known concentrations of analytes. The LCS % REC is a measure of the accuracy of the preparation and analytical methods. The laboratory control sample duplicate (LCSD) is a duplicate preparation and analysis of the LCS. The differences between the LCS and LCSD recoveries are used to calculate the relative percent difference (RPD), which is a measure of the precision of the preparation and analytical methods. LCS samples were analyzed for each sample batch for all analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the LCS % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects. Additionally, results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the LCS/LCSD RPD exceeds 30%.

An elevated LCS/LCSD RPD for vinyl chloride resulted in the non-detected results for this compound in 17 associated samples being qualified as estimated. Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-2 presents the VOC QC outliers and associated samples for all assigned qualifiers.

All LCS/LCSD % RECs were within laboratory QC limits and all remaining RPDs were less than 30%.

3.8 Matrix Spikes and Matrix Spike Duplicates

MS/MSD analyses measure method accuracy and precision for a project-specific matrix. A field sample is split into three portions (original, MS, and MSD) and known amounts of analytes are added (spiked) into the MS and MSD portions of the sample. The analytical results of these two portions are compared to each other for reproducibility using the RPD. These results are also compared against the unspiked portion of the sample for % REC of the spiked analytes. MS/MSD samples were analyzed for each SDG for all analyses. MS/MSD results were provided for all analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects and UJ-coded for non-detects if the MS/MSD % RECs are below the laboratory QC limits but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects if the MS/MSD % RECs are greater than the QC limits. No action is required for non-detects.

All % RECs were within laboratory QC limits and all RPDs were less than 30%.

3.9 Field Duplicates

Field duplicate analytical results provide information on the ability to reproduce field results and account for error introduced from handling, shipping, preparing, and analyzing field samples. The field duplicate pairs collected this quarter are listed below:

- UNFL-10A-072011 / UNFL-210A-072011 (VOCs, Explosives)
- 056-072011 / 256-072011 (VOCs and Explosives);
- 068-072011 / 268-072011 (VOCs and Explosives);
- 087-072011 / 287-072011 (VOCs and Explosives);
- 096-072011 / 296-072011 (VOCs and Explosives);
- 0104-072011 / 2104-072011 (VOCs and Explosives);
- 0113-072011 / 2113-072011 (VOCs and Explosives); and
- 0115-072011 / 2115-072011 (VOCs and Explosives).

The field duplicate data were acceptable with no detections in any of the field duplicate pairs.

3.10 Dilutions and Reanalyses

No dilutions or reanalyses were required for this sampling event.

3.11 Other QC Parameters

All detected explosive results were confirmed on a second column. A column comparison between the detected explosive results was made using explosive identification summary forms. The validator confirmed all reported explosives detections and column RPDs.

Five detected results with intercolumn RPDs exceeding 40% were qualified as estimated (J). Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-2 presents the explosive QC outliers and associated samples for all assigned qualifiers. These qualifiers were not used to determine analytical completeness or project completeness (Section 4.0).

3.12 Laboratory Qualifiers

Analytes detected below the LOQ, but above the detection limit (DL) were quantified and results were assigned an estimated (J) qualifier by the laboratory. These qualifiers were carried over by the validator and were not used to determine analytical completeness or project completeness (Section 4.0).

4.0 OVERALL ASSESSMENT

The following subsections present the field completeness, analytical completeness, and project completeness determinations for the Third Quarter 2011 WSW sampling event.

4.1 Field Completeness

Field completeness for sample collection was assessed by comparing the number of samples properly collected to the number of samples planned for collection. A sample compliant with work plan requirements could not be obtained from WSW-116. As a result, the field completeness for the VOCs and explosives was determined to be 98.8%. TSS was not affected and the field completeness for TSS was 100%. The overall field completeness percentage is 98.8%, which exceeds the field completeness goal of 95%.

Section 2.0 presents the field sampling activities. Table 4-1 presents the field completeness.

4.2 Analytical Completeness

Acceptable data is a measure of laboratory contract compliance. Acceptable data includes data that has not been rejected or qualified as estimated (J). Qualified data is considered acceptable if appropriate corrective actions were taken by the laboratory or if no corrective actions are required. Acceptable data completeness percentages for VOCs (100%), explosives (99.4%), and TSS (100%) met the acceptable data completeness goals of 90% for each analytical method. Overall acceptable data completeness is 99.7%, which exceeds the overall acceptable data completeness goal of 95%.

Quality data is a measure of the percentage of usable data. Quality data includes all data except rejected data points, and does not include analyses for which replacement data points are available. Quality data completeness percentages for the VOCs, explosives, and TSS are 100%, as no sample results were rejected. These exceed the quality data completeness goals of 80% for each analytical method. Overall quality data completeness is also 100%, which exceeds the overall quality data completeness goal of 80%.

Table 4-2 presents acceptable and quality data completeness.

4.3 Project Completeness

Project completeness combines sampling and analytical protocols to assess the expectations of the project as a whole. Project completeness is determined by comparing the percentage of samples/measurements that are determined to be usable to the total number of samples/ measurements planned. Project completeness is calculated using the field completeness and analytical completeness (quality data) completeness percentages. Overall project completeness is 98.8% as one sample location scheduled for sampling could not be sampled. The overall project completeness exceeds the project completeness goal of 90%.

Table 4-3 presents the project completeness percentages.

5.0 CONCLUSIONS

No data points were qualified as rejected (R). Data are acceptable for use, as qualified. Overall field completeness is 98.8%, which exceeds the project goal of 95%. Overall quality data completeness is 100% and overall acceptable data completeness is 98.8%, both of which meet project goals. The overall project completeness at 98% also meets the project goal of 90%. Three explosive results in one sample were qualified due to an elevated surrogate %REC. Detected results qualified as estimated for intercolumn RPDs exceedances do not effect analytical or project completeness.

6.0 REFERENCES

ECC, 2009, *Site Wide Work Plan, Support Services, Former Nebraska Ordnance Plant, Mead, Nebraska*. Revised February 2011.

ECC, 2007 *Mead Validation Guidelines*, (approved by USACE 2007).

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Tables

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List of Acronyms for Tables

Term	Definition
µg/L	micrograms per liter
BLK	blank
CAL	calibration
CCB	continuing calibration blank
CCV	continuing calibration verification
CRA	CRDL standard for atomic absorption analysis
CRDL	Contract Required Detection Limit
CRI	CRDL standard for inductively coupled plasma analysis
GC/MS	Gas chromatography–mass spectrometry
ICV	initial calibration verification
ID	identification/identifier
IS	internal standard
J	estimated
Lab	laboratory
LCS	laboratory control sample
MS/MSD	matrix spike/matrix spike duplicate
MS	mass-spectrometry
QC	Quality Control
%REC	percent recovery
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
SDG	sample delivery group
SURR	surrogate
TR	trace level detect
TSS	total suspended solids
U	not detected at laboratory limit of detection
UCL	upper control limit
UJ	qualified as estimated and not detected at laboratory limit of detection
VOC	volatile organic compound
WSW	water supply well

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Table 1-1
Sample Locations, Sample IDs, and Analyses
2011 Water Supply Well Sampling Event Third Quarter
Former Nebraska Ordnance Plant, Mead, Nebraska

Well IDs	Sample IDs	Analyses
UNFL-09A	UNFL-9A-072011	Explosives, Volatiles
UNFL-10A	UNFL-10A-072011	Explosives, Volatiles
UNFL-10A	UNFL-210A-072011	Explosives, Volatiles
WSW-100	0100-072011	Explosives, Volatiles
WSW-101	0101-072011	Explosives, Volatiles
WSW-102	0102-072011	Explosives, Volatiles
WSW-103	0103-072011	Explosives, Volatiles
WSW-104	0104-072011	Explosives, Volatiles
WSW-104	2104-072011	Explosives, Volatiles
WSW-105	0105-072011	Explosives, Volatiles
WSW-106	0106-072011	Explosives, Volatiles
WSW-107	0107-072011	Explosives, Volatiles
WSW-108	0108-072011	Explosives, Volatiles
WSW-109	0109-072011	Explosives, Volatiles
WSW-110	0110-072011	Explosives, Volatiles
WSW-111	0111-072011	Explosives, Volatiles
WSW-112	0112-072011	Explosives, Volatiles
WSW-113	0113-072011	Explosives, Volatiles
WSW-113	2113-072011	Explosives, Volatiles
WSW-114	0114-072011	Explosives, Volatiles
WSW-115	0115-072011	Explosives, Volatiles
WSW-115	2115-072011	Explosives, Volatiles
WSW-117	0117-072011	Explosives, Volatiles
WSW-27	027-072011	Explosives, Volatiles
WSW-29	029-072011	Explosives, Volatiles
WSW-29A	029A-072011	Explosives, Volatiles
WSW-32	032-072011	Explosives, Volatiles
WSW-34	034-072011	Explosives, Volatiles
WSW-36	036-072011	Explosives, Volatiles
WSW-50A	050A-072011	Explosives, Volatiles
WSW-50B	050B-072011	Explosives, Volatiles
WSW-51	051-072011	Explosives, Volatiles
WSW-51A	051A-072011	Explosives, Volatiles
WSW-52A	052A-072011	Explosives, Volatiles
WSW-52A-B	052A-B-072011	Explosives, TSS, Volatiles
WSW-52B	052B-072011	Explosives, Volatiles
WSW-52C[1]	052C-092011	Explosives, Volatiles
WSW-52C-B[1]	052C-B-092011	Explosives, TSS, Volatiles
WSW-53	053-072011	Explosives, Volatiles
WSW-53-B	053-B-072011	Explosives, TSS, Volatiles
WSW-54	054-072011	Explosives, Volatiles
WSW-54-B	054-B-072011	Explosives, TSS, Volatiles
WSW-55	055-072011	Explosives, Volatiles
WSW-56	056-072011	Explosives, Volatiles
WSW-56	256-072011	Explosives, Volatiles
WSW-57	057-072011	Explosives, Volatiles
WSW-58	058-072011	Explosives, Volatiles
WSW-59	059-072011	Explosives, Volatiles

Table 1-1
Sample Locations, Sample IDs, and Analyses
2011 Water Supply Well Sampling Event Third Quarter
Former Nebraska Ordnance Plant, Mead, Nebraska

Well IDs	Sample IDs	Analyses
WSW-60	060-072011	Explosives, Volatiles
WSW-61	061-072011	Explosives, Volatiles
WSW-62	062-072011	Explosives, Volatiles
WSW-63	063-072011	Explosives, Volatiles
WSW-64	064-072011	Explosives, Volatiles
WSW-65	065-072011	Explosives, Volatiles
WSW-66	066-072011	Explosives, Volatiles
WSW-67	067-072011	Explosives, Volatiles
WSW-68	068-072011	Explosives, Volatiles
WSW-68	268-072011	Explosives, Volatiles
WSW-73	073-072011	Explosives, Volatiles
WSW-74	074-072011	Explosives, Volatiles
WSW-75	075-072011	Explosives, Volatiles
WSW-76	076-072011	Explosives, Volatiles
WSW-77	077-072011	Explosives, Volatiles
WSW-79	079-072011	Explosives, Volatiles
WSW-80	080-072011	Explosives, Volatiles
WSW-81	081-072011	Explosives, Volatiles
WSW-82	082-072011	Explosives, Volatiles
WSW-86	086-072011	Explosives, Volatiles
WSW-87	087-072011	Explosives, Volatiles
WSW-87	287-072011	Explosives, Volatiles
WSW-89	089-072011	Explosives, Volatiles
WSW-90	090-072011	Explosives, Volatiles
WSW-91	091-072011	Explosives, Volatiles
WSW-92	092-072011	Explosives, Volatiles
WSW-93	093-072011	Explosives, Volatiles
WSW-94	094-072011	Explosives, Volatiles
WSW-95	095-072011	Explosives, Volatiles
WSW-96	096-072011	Explosives, Volatiles
WSW-96	296-072011	Explosives, Volatiles
WSW-97	097-072011	Explosives, Volatiles
WSW-99	099-072011	Explosives, Volatiles

Notes:

TSS	A2540D	Total Suspended Solids Dried at 103-105 'C
Volatiles	E524.2	Volatile Organic Compounds by Purge & Trap Capillary Column GC/MS
Explosives	SW8330	Nitroaromatics and Nitramines by HPLC

1 - These locations were re sampled to obtain a more representative sample from this location.

Table 2-1
Sample Collection Summary
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

	Field Samples	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	TSS	Volatiles
Field Samples	UNFL-9A-072011			7/22/2011	7/22/2011	200-6170-3	6170	•		•
	UNFL-10A-072011			7/22/2011	7/22/2011	200-6170-1	6170	•		•
			UNFL-210A-072011	7/22/2011	7/22/2011	200-6170-2	6170	•		•
	0100-072011			7/14/2011	7/16/2011	200-6059-3	6059	•		•
	0101-072011			7/14/2011	7/16/2011	200-6059-1	6059	•		•
	0102-072011			7/18/2011	7/20/2011	200-6093-25	6093	•		•
	0103-072011			7/15/2011	7/16/2011	200-6059-29	6059	•		•
	0104-072011			7/15/2011	7/16/2011	200-6059-27	6059	•		•
			2104-072011	7/15/2011	7/16/2011	200-6059-28	6059	•		•
	0105-072011			7/15/2011	7/16/2011	200-6059-37	6059	•		•
	0106-072011			7/15/2011	7/16/2011	200-6059-36	6059	•		•
	0107-072011			7/15/2011	7/16/2011	200-6059-25	6059	•		•
	0108-072011			7/21/2011	7/22/2011	200-6138-8	6138	•		•
	0109-072011			7/15/2011	7/16/2011	200-6059-38	6059	•		•
	0110-072011			7/18/2011	7/20/2011	200-6093-8	6093	•		•
	0111-072011			7/18/2011	7/20/2011	200-6093-24	6093	•		•
	0112-072011			7/21/2011	7/22/2011	200-6138-5	6138	•		•
	0113-072011	0113-072011		7/15/2011	7/16/2011	200-6059-23	6059	•		•
			2113-072011	7/15/2011	7/16/2011	200-6059-24	6059	•		•
	0114-072011			7/25/2011	7/27/2011	200-6216-1	6216	•		•
	0115-072011	0115-072011		7/21/2011	7/22/2011	200-6138-3	6138	•		•
			2115-072011	7/21/2011	7/22/2011	200-6138-4	6138	•		•
	0117-072011			7/18/2011	7/20/2011	200-6093-19	6093	•		•
	027-072011			7/14/2011	7/16/2011	200-6059-11	6059	•		•
	029-072011			7/14/2011	7/16/2011	200-6059-12	6059	•		•
	029A-072011			7/14/2011	7/16/2011	200-6059-13	6059	•		•
	032-072011			7/14/2011	7/16/2011	200-6059-10	6059	•		•
	034-072011			7/14/2011	7/16/2011	200-6059-9	6059	•		•
	036-072011			7/14/2011	7/16/2011	200-6059-8	6059	•		•
	050A-072011			7/14/2011	7/16/2011	200-6059-14	6059	•		•
	050B-072011			7/14/2011	7/16/2011	200-6059-15	6059	•		•
	051-072011			7/14/2011	7/16/2011	200-6059-17	6059	•		•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

	Field Samples	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	TSS	Volatiles
Field Samples	051A-072011			7/14/2011	7/16/2011	200-6059-18	6059	•		•
	052A-072011			7/18/2011	7/20/2011	200-6093-3	6093	•		•
	052A-B-072011			7/18/2011	7/20/2011	200-6093-4	6093	•	•	•
	052B-072011			7/14/2011	7/16/2011	200-6059-16	6059	•		•
	052C-092011			9/22/2011	9/23/2011	200-7115-2	7115	•		•
	052C-B-092011			9/22/2011	9/23/2011	200-7115-3	7115	•	•	•
	053-072011			7/15/2011	7/16/2011	200-6059-19	6059	•		•
	053-B-072011			7/15/2011	7/16/2011	200-6059-20	6059	•	•	•
	054-072011			7/18/2011	7/20/2011	200-6093-29	6093	•		•
	054-B-072011			7/18/2011	7/20/2011	200-6093-30	6093	•	•	•
	055-072011			7/15/2011	7/16/2011	200-6059-22	6059	•		•
	056-072011			7/18/2011	7/20/2011	200-6093-14	6093	•		•
			256-072011	7/18/2011	7/20/2011	200-6093-15	6093	•		•
	057-072011			7/18/2011	7/20/2011	200-6093-12	6093	•		•
	058-072011			7/21/2011	7/22/2011	200-6138-6	6138	•		•
	059-072011			7/18/2011	7/20/2011	200-6093-13	6093	•		•
	060-072011			7/18/2011	7/20/2011	200-6093-23	6093	•		•
	061-072011			7/18/2011	7/20/2011	200-6093-22	6093	•		•
	062-072011			7/18/2011	7/20/2011	200-6093-21	6093	•		•
	063-072011			7/18/2011	7/20/2011	200-6093-28	6093	•		•
	064-072011			7/18/2011	7/20/2011	200-6093-27	6093	•		•
	065-072011			7/14/2011	7/16/2011	200-6059-2	6059	•		•
	066-072011			7/14/2011	7/16/2011	200-6059-4	6059	•		•
	067-072011			7/14/2011	7/16/2011	200-6059-5	6059	•		•
	068-072011			7/14/2011	7/16/2011	200-6059-6	6059	•		•
			268-072011	7/14/2011	7/16/2011	200-6059-7	6059	•		•
	073-072011			7/15/2011	7/16/2011	200-6059-33	6059	•		•
	074-072011			7/15/2011	7/16/2011	200-6059-32	6059	•		•
	075-072011			7/18/2011	7/20/2011	200-6093-11	6093	•		•
	076-072011			7/18/2011	7/20/2011	200-6093-10	6093	•		•
	077-072011			7/18/2011	7/20/2011	200-6093-9	6093	•		•
	079-072011			7/18/2011	7/20/2011	200-6093-5	6093	•		•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

	Field Samples	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Explosives	TSS	Volatiles
Field Samples	080-072011			7/21/2011	7/22/2011	200-6138-11	6138	•		•
	081-072011			7/21/2011	7/22/2011	200-6138-9	6138	•		•
	082-072011			7/21/2011	7/22/2011	200-6138-10	6138	•		•
	086-072011			7/15/2011	7/16/2011	200-6059-35	6059	•		•
	087-072011	087-072011		7/15/2011	7/16/2011	200-6059-30	6059	•		•
			287-072011	7/15/2011	7/16/2011	200-6059-31	6059	•		•
	089-072011			7/21/2011	7/22/2011	200-6138-7	6138	•		•
	090-072011			7/18/2011	7/20/2011	200-6093-26	6093	•		•
	091-072011			7/18/2011	7/20/2011	200-6093-20	6093	•		•
	092-072011			7/18/2011	7/20/2011	200-6093-18	6093	•		•
	093-072011			7/18/2011	7/20/2011	200-6093-16	6093	•		•
	094-072011			7/18/2011	7/20/2011	200-6093-17	6093	•		•
	095-072011			7/15/2011	7/16/2011	200-6059-26	6059	•		•
	096-072011	096-072011		7/18/2011	7/20/2011	200-6093-1	6093	•		•
			296-072011	7/18/2011	7/20/2011	200-6093-2	6093	•		•
	097-072011			7/15/2011	7/16/2011	200-6059-34	6059	•		•
	099-072011			7/18/2011	7/20/2011	200-6093-7	6093	•		•
Trip Blanks	TRB-096-072011			7/18/2011	7/20/2011	200-6093-31	6093			•
	TRB-2101-072011			7/14/2011	7/16/2011	200-6059-39	6059			•
	TRB-2114-072011			7/25/2011	7/27/2011	200-6216-2	6216			•
	TRB-252C-072011			7/21/2011	7/22/2011	200-6138-12	6138			•
	TRB-UNFL-210A			7/22/2011	7/22/2011	200-6170-4	6170			•

Notes:

Explosives	SW8330	Nitroaromatics and Nitramines by HPLC
Volatiles	E524.2	Volatile Organic Compounds by Purge & Trap Capillary Column GC/MS
TSS	A2540D	Total Suspended Solids Dried at 103-105 'C

• = Requested for the indicated analyses

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Table 3-1
Data Quality Evaluation Results
Water Supply Well Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	C_RPD	IS_Surr	Comments	Final Result
0114-072011	7/25/2011	6216	200-6216-1	Explosives	1,3,5-Trinitrobenzene	UG/L	0.11	J		X	Surrogate recovery outside project limits.	0.11 J
0114-072011	7/25/2011	6216	200-6216-1	Explosives	2,4,6-Trinitrotoluene	UG/L	0.12	J		X	Surrogate recovery outside project limits.	0.12 J
0114-072011	7/25/2011	6216	200-6216-1	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	UG/L	0.22	J	X	X	Column RPD, Surrogate recovery outside project limits.	0.22 J
050B-072011	7/14/2011	6059	200-6059-15	Explosives	1,3,5-Trinitrobenzene	UG/L	0.021	J	X		Column RPD	0.021 J
052B-072011	7/14/2011	6059	200-6059-16	Explosives	2,4,6-Trinitrotoluene	UG/L	0.021	J	X		Column RPD	0.021 J
052B-072011	7/14/2011	6059	200-6059-16	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	UG/L	0.025	J	X		Column RPD	0.025 J
054-B-072011	7/18/2011	6093	200-6093-30	Explosives	2-Amino-4,6-Dinitrotoluene	UG/L	0.068	J	X		Column RPD	0.068 J

Reason for Qualification

BLK	Ambient Blank, CCB, CCB - Neg, Equipment Blank, Field Blank, Lab Blank, Lab Blank - Negative, Material Blank, Trip Blank
CAL	CCV, CCV RRF, ICV, Initial Calibration RRF, Initial Calibration RSD
IS	Internal standard
LCS	LCS - high, LCS - low, LCS RPD
MS	MS - high, MS - low, MS RPD
RPD	Column RPD
SAMP	Cooler temperature greater than 10 degreec C., Cooler temperature greater than 4 degrees C, but less than 10 degreec C., Encore sample holding time exceeded by less than 2X., Encore sample holding time exceeded by more than 2X., Holding time exceeded by less than 2X., Holding time exceeded by more than 2X., Receipt Temperature, Sample preservation/collection requirement not met., Sample Receipt Condition.
SURR	Surrogate recovery above the upper limit, Surrogate recovery below the lower limit.
TR	Trace Level Detect
OTHER	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank., Analyte not confirmed on second column, Blank - No Action, Column breakdown (pesticides), CRA/CRI Recovery, Data rejected due to radiological anomolies, Exceeds LinearCalibration Range, False Positive, Field Duplicate RPD, Hydrocarbon pattern does not match standard, ICS, Improper preparation/extraction, Lab Replicate RPD, No precision available, Prep Hold Time, Raised reporting limit, Serial dilution, Tentatively Identified Compound, Test Hold Time, The analyte was found in an associated blank as well as in the sample.

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Table 3-2
Quality Control Outliers
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Confirmation Column Difference					
0114-072011	6216	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	158 RPD
050B-072011	6059	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	55.2 RPD
052B-072011	6059	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	109 RPD
052B-072011	6059	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	197 RPD
054-B-072011	6093	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	77.6 RPD
Surrogate					
0114-072011	6216	1,3,5-Trinitrobenzene	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	120 %
0114-072011	6216	2,4,6-Trinitrotoluene	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	120 %
0114-072011	6216	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Surrogate exceeds UCL	1,2-Dinitrobenzene 70 - 115 %	120 %

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Table 4-1
Field Completeness
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Number of Samples Planned	Number of Samples Collected	Field Completeness
Explosives	82	81	98.8%
Volatiles	82	81	98.8%
Total Suspended Solids	4	4	100.0%
Totals =	168	166	98.8%
Goal =			95%

Notes:

Number of Samples Planned includes field samples and field duplicate samples.

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Table 4-2
Analytical Completeness
Third Quarter 2011 Water Supply Well Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Total Number of Parameters	Acceptable Data	Acceptable Data Completeness	Acceptable Data Completeness Goals	Quality Data	Quality Data Completeness	Quality Data Completeness Goals
Volatiles (Analyte Count - 6)	486	486	100%	90%	486	100%	80%
Explosives (Analyte Count - 6)	486	483	99.4%	90%	486	100%	80%
Total Suspended Solids (Analyte Count - 1)	4	4	100%	90%	4	100%	80%
Totals =	976	973	99.7%	90%	976	100.0%	80%

Notes:

Total number of parameters includes field samples (includes data points from dilutions and/or reanalyses to be used in place of original data) and field duplicates (does not include field blanks or trip blanks).
Acceptable data includes data that has not been rejected or qualified as estimated (J/UJ). Data points for which the required corrective actions were taken or do not require corrective action do not count against the acceptable data completeness goal calculation (i.e., results exceeding the calibration range that were reanalyzed at dilutions within the calibration range).
Quality data is defined as all non-rejected data.

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Table 4-3
Project Completeness
Water Supply Well Third Quarter 2011 Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field	Analytical	Project Completeness
98.8%	100.0%	98.8%
Project Completeness Goal =		90%

Notes:

Analytical Completeness is the percentage of usable data (i.e. quality data completeness).
Project Completeness combines sampling and analytical protocols to access the expctations of the project as a whole. Project completeness is determined by comparing the percentage of samples / measurements that are determined to be usable to the total number of samples / measurements planned.

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Appendix A
Chain of Custody Records

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estAmerica Burlington
Community Drive
ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

WSW Sampling 2011 3rd QTR

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 07-14-11	COC No: 07141
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 4 COCs
46 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
kewood, CO 80401	Calendar (C) or Work Days (W)			
03) 298-7607 Phone	TAT if different from Below			SDG No.
03) 298-7837 FAX	☐ 3 weeks			
oject Name: FNOP 5447.002	☐ 2 weeks			
te: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0101 - 072011	7-14-11	1140	G	W	2		X									
065 - 072011	7-14-11	1200	G	W	2		X									
0100 - 072011	7-14-11	1215	G	W	2		X									
066 - 072011	7-14-11	1230	G	W	2		X									
067 - 072011	7-14-11	1240	G	W	2		X									
068 - 072011	7-14-11	1255	G	W	2		X									
268 - 072011	7-14-11	1255	G	W	2		X									
036 - 072011	7-14-11	1315	G	W	2		X									
034 - 072011	7-14-11	1330	G	W	2		X									
032 - 072011	7-14-11	1345	G	W	2		X									
027 - 072011	7-14-11	1430	G	W	2		X									
029 - 072011	7-14-11	1445	G	W	2		X									

reservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

ossible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

pecial Instructions/QC Requirements & Comments:

elinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. [illegible]	ECC	7-15-	Fed-ex 7973	1062 0775	
elinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			[illegible]	TA	7/16/11 930
elinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

estAmerica Burlington
Community Drive
ite 11
uth Burlington, VT 5403
one 802.660.1990 fax 802.660.1919

Groundwater samples

2-GW Sampling 3rd QTR SE 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-14-11	COC No: 071411
CC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 4 COCs
46 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
kewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
03) 298-7607 Phone	TAT if different from Below _____			SDG No.
03) 298-7837 FAX	☐ 3 weeks			
oject Name: FNOP 5447.002	☐ 2 weeks			
te: Former NOP	☐ 1 week			
O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	TSS/SM 2540 D								Sample Specific Notes:
029A-072011	7-14-11	1500	G	W	2		X																	
050A-072011	7-14-11	1515	G	W	2		X																	
050B-072011	7-14-11	1525	G	W	2		X																	
052B-072011	7-14-11	1535	G	W	2		X																	
051-072011	7-14-11	1545	G	W	2		X																	
051A-072011	7-14-11	1600	G	W	2		X																	
053-072011	7-15-11	0830	G	W	2		X																	
053-B-072011	7-15-11	0830	G	W	2		X																	
TSS-053-072011	7-15-11	0830	G	W	1											X								
055-072011	7-15-11	0915	G	W	2		X																	
0113-072011	7-15-11	0930	G	W	2		X																	
2113-072011	7-15-11	0930	G	W	2		X																	

reservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

ossible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

pecial Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECL		Fed-Ex 7973 1062 0775		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/16/11 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
0 Community Drive
uite 11
outh Burlington, VT 5403
hone 802.660.1990 fax 802.660.1919

Groundwater samples

WSW Sampling
3rd QTR 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 4 COCs
746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
akewood, CO 80401	Calendar (C) or Work Days (W) _____			SDG No.
303) 298-7607 Phone	TAT if different from Below _____			
303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0113-072011 MS	7-15-11	0930	G	W	2		X									
0113-072011 MSD	7-15-11	0930	G	W	2		X									
107-072011	7-15-11	1000	G	W	2		X									
045-072011	7-15-11	1045	G	W	2		X									
104-072011	7-15-11	1100	G	W	2		X									
104-072011	7-15-11	1100	G	W	2		X									
103-072011	7-15-11	1115	G	W	2		X									
087-072011	7-15-11	1130	G	W	2		X									
287-072011	7-15-11	1130	G	W	2		X									
087-072011 MS	7-15-11	1130	G	W	2		X									
087-072011 MSD	7-15-11	1130	G	W	2		X									
074-072011	7-15-11	1300	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	7-15-11	Fed-Ex 79	77 1062	0775
				TA	7/16/11 930

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
Phone 802.660.1990 fax 802.660.1919

Groundwater samples

3rd QTR SE
WSW 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W)			5447.002
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
073-072011	7-15-11	1315	G	W	2		X									
097-072011	7-15-11	1330	G	W	2		X									
086-072011	7-15-11	1340	G	W	2		X									
0106-072011	7-15-11	1355	G	W	2		X									
0105-072011	7-15-11	1410	G	W	2		X									
0109-072011	7-15-11	1425	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby P. Hinz	ECC	7-15-11	Fed-ex 7973 1062 0775		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/14/11 930
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404

Phone (912) 354 7858

Groundwater samples

2nd SW Sampling 3rd QTR 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-14-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0100-072011	7-14-11	1140	G	W	3	X										
TRB-2101-072011	7-14-11	1140	G	W	2	X										
065-072011	7-14-11	1200	G	W	3	X										
0100-072011	7-14-11	1215	G	W	3	X										
066-072011	7-14-11	1230	G	W	3	X										
067-072011	7-14-11	1240	G	W	3	X										
068-072011	7-14-11	1255	G	W	3	X										
268-072011	7-14-11	1255	G	W	3	X										
036-072011	7-14-11	1315	G	W	3	X										
034-072011	7-14-11	1330	G	W	3	X										
032-072011	7-14-11	1345	G	W	3	X										
027-072011	7-14-11	1430	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

GKC 7/18/11 ~~680-70488~~ 3.8°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby O. Hinz	ECC	7-15-11 1710	Fed-ex 7973 49	~~1062~~ 0775	
Relinquished by:	Company:	Date/Time:	Received by:	Company: 7951-302	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TASV	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

WSW Sampling 3rd QTR SE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-14-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	2 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			SDG No.
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
029-072011	7-14-11	1445	G	W	3	X										
029A-072011	7-14-11	1500	G	W	3	X										
050A-072011	7-14-11	1515	G	W	3	X										
050B-072011	7-14-11	1525	G	W	3	X										
052B-072011	7-14-11	1535	G	W	3	X										
051-072011	7-14-11	1545	G	W	3	X										
051A-072011	7-14-11	1600	G	W	3	X										
053-072011	7-15-11	0830	G	W	3	X										
053-B-072011	7-15-11	0830	G	W	3	X										
055-072011	7-15-11	0915	G	W	3	X										
0113-072011	7-15-11	0930	G	W	3	X										
2113-072011	7-15-11	0930	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~680-70488~~ 7/18/11

49 7951 3027

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby O. Hinz	ECC	7-15-11 1700	Fed-ex 7973 ~~1062 0775~~		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TALAN	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

WGW Sampling
3rd QTR GE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	3 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0113-072011 MS	7-15-11	0930	G	W	3	X										
0113-072011 MSD	7-15-11	0930	G	W	3	X										
0107-072011	7-15-11	1000	G	W	3	X										
095-072011	7-15-11	1045	G	W	3	X										
0104-072011	7-15-11	1100	G	W	3	X										
2104-072011	7-15-11	1100	G	W	3	X										
0103-072011	7-15-11	1115	G	W	3	X										
087-072011	7-15-11	1130	G	W	3	X										
287-072011	7-15-11	1130	G	W	3	X										
087-072011 MS	7-15-11	1130	G	W	3	X										
087-072011 MSD	7-15-11	1130	G	W	3	X										
074-072011	7-15-11	1300	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~680-70188~~ GKC 7/18/11

49 7951 3027

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	1730 7-15-11	Fed-ex 7973	~~TACL~~ 0775	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: George Kh	Company: TA-N	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

WSW Sampling
3rd QTR SE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5.447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
073 - 072011	7-15-11	1315	G	W	3	X										
097 - 072011	7-15-11	1330	G	W	3	X										
086 - 072011	7-15-11	1340	G	W	3	X										
0106 - 072011	7-15-11	1355	G	W	3	X										
0105 - 072011	7-15-11	1410	G	W	3	X										
0109 - 072011	7-15-11	1425	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~880-70488~~
Grec 7/19/11

49 7951 3027

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1730 7-15-11	Fed-ex 3977	~~TAL~~ 0775	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA SV	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

2 SW Sampling 3rd QTR 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-14-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0101 - 072011	7-14-11	1140	G	W	3	X										
TRB-2101-072011	7-14-11	1140	G	W	2	X										
065 - 072011	7-14-11	1200	G	W	3	X										
0100 - 072011	7-14-11	1215	G	W	3	X										
066 - 072011	7-14-11	1230	G	W	3	X										
067 - 072011	7-14-11	1240	G	W	3	X										
068 - 072011	7-14-11	1255	G	W	3	X										
268 - 072011	7-14-11	1255	G	W	3	X										
036 - 072011	7-14-11	1315	G	W	3	X										
034 - 072011	7-14-11	1330	G	W	3	X										
032 - 072011	7-14-11	1345	G	W	3	X										
027 - 072011	7-14-11	1430	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

GRC 7/18/11
~~680-70488~~ 3.8°C
200-6059

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby O. Hinz	ECC	7-15-11 1710	Fed-ex 7923 49	~~1062~~ 0775	
Relinquished by:	Company:	Date/Time:	Received by:	Company: 7951-302	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TASV	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404

Phone (912) 354 7858

Groundwater samples

WSW Sampling 3rd QTR SE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-14-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	2 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			SDG No.
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
029-072011	7-14-11	1445	G	W	3	X										
029A-072011	7-14-11	1500	G	W	3	X										
050A-072011	7-14-11	1515	G	W	3	X										
050B-072011	7-14-11	1525	G	W	3	X										
052B-072011	7-14-11	1535	G	W	3	X										
051-072011	7-14-11	1545	G	W	3	X										
051A-072011	7-14-11	1600	G	W	3	X										
053-072011	7-15-11	0830	G	W	3	X										
053-B-072011	7-15-11	0830	G	W	3	X										
055-072011	7-15-11	0915	G	W	3	X										
0113-072011	7-15-11	0930	G	W	3	X										
2113-072011	7-15-11	0930	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~680-70488~~ OKC 7/18/11

49 7951 3027 200-6059

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby O. Hinz	ECC	1770 7-15-11	Fed-ex 7973 ~~1662 0775~~		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TALAN	7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404

Phone (912) 354 7858

Groundwater samples

WGW Sampling
3rd QTR GE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071471
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	3 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0113-072011 MS	7-15-11	0930	G	W	3	X										
0113-072011 MSD	7-15-11	0930	G	W	3	X										
0107-072011	7-15-11	1000	G	W	3	X										
095-072011	7-15-11	1045	G	W	3	X										
0104-072011	7-15-11	1100	G	W	3	X										
2104-072011	7-15-11	1100	G	W	3	X										
0103-072011	7-15-11	1115	G	W	3	X										
087-072011	7-15-11	1130	G	W	3	X										
287-072011	7-15-11	1130	G	W	3	X										
087-072011 MS	7-15-11	1130	G	W	3	X										
087-072011 MSD	7-15-11	1130	G	W	3	X										
074-072011	7-15-11	1300	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~680-70488~~ CORC 7/18/11

49 7951 3027 200-6059

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	1730 7-15-11	Fed-ex 7977 1062 0775		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: George Kh	Company: TA SN	Date/Time: 7/16/11 0941

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

WSW Sampling
3rd QTR SE 2011

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-15-11	COC No: 071411
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	4 of 4 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5.447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			SDG No.
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
073-072011	7-15-11	1315	G	W	3	X										
097-072011	7-15-11	1330	G	W	3	X										
086-072011	7-15-11	1340	G	W	3	X										
0106-072011	7-15-11	1355	G	W	3	X										
0105-072011	7-15-11	1410	G	W	3	X										
0109-072011	7-15-11	1425	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

~~680-70488~~ Grec 7/18/11
49 7951 3027 200-6059

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1730 7-15-11	Fed-ex 3977	~~TAS~~ 0775	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TA SV	Date/Time: 7/16/11 0941

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

USW 3rd QTR SE 2011

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
075-072011	7-18-11	1125	G	W	2		X									
057-072011	7-18-11	1215	G	W	2		X									
059-072011	7-18-11	1225	G	W	2		X									
056-072011	7-18-11	1240	G	W	2		X									
256-072011	7-18-11	1240	G	W	2		X									
093-072011	7-18-11	1255	G	W	2		X									
094-072011	7-18-11	1310	G	W	2		X									
092-072011	7-18-11	1325	G	W	2		X									
0117-072011	7-18-11	1345	G	W	2		X									
091-072011	7-18-11	1355	G	W	2		X									
062-072011	7-18-11	1430	G	W	2		X									
061-072011	7-18-11	1440	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	7-18-11	Fed-ex 7973 1924		7013
				TA	7/20/11 1020

.tAmerica Burlington
) Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

WSW 3rd QTR SE 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	TSS/SM 2540D	Sample Specific Notes:
096-072011	7-18-11	0830	G	W	2		X										
296-072011	7-18-11	0830	G	W	2		X										
096-072011 MS	7-18-11	0830	G	W	2		X										
096-072011 MSD	7-18-11	0830	G	W	2		X										
052A-072011	7-18-11	0910	G	W	2		X										
052A-B-072011	7-18-11	0910	G	W	3		X									X	
079-072011	7-18-11	1000	G	W	2		X										
0116-072011	7-18-11	1020	G	W	2		X										
099-072011	7-18-11	1035	G	W	2		X										
0100-072011	7-18-11	1045	G	W	2		X										
077-072011	7-18-11	1100	G	W	2		X										
076-072011	7-18-11	1110	G	W	2		X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	7-19-11	Fed-ex 7173	1924 7013	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

WSW 3rd QTR SE 2011

TestAmerica Savannah
102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-096-072011	7-18-11	0830	G	W	2	X										
096-072011	7-18-11	0830	G	W	3	X										
296-072011	7-18-11	0830	G	W	3	X										
096-072011 MS	7-18-11	0830	G	W	3	X										
096-072011 MSD	7-18-11	0830	G	W	3	X										
052A-072011	7-18-11	0910	G	W	3	X										
052A-B-072011	7-18-11	0910	G	W	3	X										
079-072011	7-18-11	1010	G	W	3	X										
0116-072011	7-18-11	1020	G	W	3	X										
099-072011	7-18-11	1035	G	W	3	X										
0110-072011	7-18-11	1045	G	W	3	X										
077-072011	7-18-11	1100	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
~~Fed~~ Toby	ECC	1700 7-19-11	Fed-ex 7949	8817	0233
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples WSW 34 QTR SE 2011

Chain of Custody Record

TestAmerica
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: 07811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	3 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
061-072011	7-18-11	1440	G	W	3	X	X									
060-072011	7-18-11	1455	G	W	3	X										
0111-072011	7-18-11	1510	G	W	3	X										
0102-072011	7-18-11	1520	G	W	3	X										
090-072011	7-18-11	1535	G	W	3	X										
064-072011	7-18-11	1545	G	W	3	X										
063-072011	7-18-11	1555	G	W	3	X										
054-072011	7-18-11	1615	G	W	3	X										
054-B-072011	7-18-11	1615	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1700 7-18-11	Fed-ex 7949	8817 0233	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

WSW Sampling 3rd QTR 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: ~~[illegible]~~ 071811
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	3 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	TSS/SM 2540D	Sample Specific Notes:
060-072011	7-18-11	~~1440~~ 1455	G	W	2		X										
0111-072011	7-18-11	1510	G	W	2		X										
0102-072011	7-18-11	1520	G	W	2		X										
090-072011	7-18-11	1535	G	W	2		X										
064-072011	7-18-11	1545	G	W	2		X										
063-072011	7-18-11	1555	G	W	2		X										
054-072011	7-18-11	1615	G	W	2		X										
054-B-072011	7-18-11	1615	G	W	3		X									X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	7-19	Fed-ex 7973 1924 7013		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/20/11 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

2nd 3rd QTR SE 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-18-11	COC No: 07184
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	2 of 3 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
076-072011	7-18-11	1110	G	W	3	X										
075-072011	7-18-11	1125	G	W	3	X										
057-072011	7-18-11	1215	G	W	3	X										
059-072011	7-18-11	1225	G	W	3	X										
056-072011	7-18-11	1240	G	W	3	X										
256-072011	7-18-11	1240	G	W	3	X										
093-072011	7-18-11	1255	G	W	3	X										
094-072011	7-18-11	1310	G	W	3	X										
092-072011	7-18-11	1325	G	W	3	X										
0117-072011	7-18-11	1345	G	W	3	X										
091-072011	7-18-11	1355	G	W	3	X										
062-072011	7-18-11	1430	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D.	ECC	1700 7-19-11	Fed-ex 7949	8817 0233	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

GW sampling 2011 3rd QTR

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-20-11	COC No: 072011
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	TSS (SM 2540D)								Sample Specific Notes:
052C-072011	7-20-11	0730	G	W	2		X																	
052C-B-072011	7-20-11	0730	G	W	2		X									X								
0115-072011	7-21-11	0930	G	W	2		X																	
2115-072011	7-21-11	0930	G	W	2		X																	
0115-072011 MS	7-21-11	0930	G	W	2		X																	
0115-072011 MSD	7-21-11	0930	G	W	2		X																	
0112-072011	7-21-11	0955	G	W	2		X																	
~~0114-072011~~	~~7-21-11~~	~~1010~~	~~G~~	~~W~~	~~2~~		~~X~~																	
~~2114-072011~~	~~7-21-11~~	~~1010~~	~~G~~	~~W~~	~~2~~		~~X~~																	
058-072011	7-21-11	1030	G	W	2		X																	
089-072011	7-21-11	1040	G	W	2		X																	
0108-072011	7-21-11	1055	G	W	2		X																	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1630 7-21-11	Fed-ex 7973	2974	7187
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/22/11 1010
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

2SW sampling 3rd qtr 2011

TestAmerica

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-21-11	COC No: 07201
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	2 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
081-072011	7-21-11	1110	G	W	2		X									
082-072011	7-21-11	1345	G	W	2		X									
080-072011	7-21-11	1400	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1630 7-21-11	FedEx 7973	2974	7187
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/22/11 1010
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

WSW sampling 3rd QTR 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-20-11	COC No: 072011
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			SDG No.
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-252C-072011	7-2011	0730	G	W	2	X										
052C-072011	7-20-11	0730	G	W	3	X										
052C-B-072011	7-20-11	0730	G	W	3	X										
0115-072011	7-21-11	0930	G	W	3	X										
2115-072011	7-21-11	0930	G	W	3	X										
0115-072011 MS	7-21-11	0930	G	W	3	X										
0115-072011 MSD	7-21-11	0930	G	W	3	X										
0112-072011	7-21-11	0955	G	W	3	X										
~~0114-072011~~	~~7-21-11~~	~~1010~~	~~G~~	~~W~~	~~3~~	~~X~~										
~~2114-072011~~	~~7-21-11~~	~~1010~~	~~G~~	~~W~~	~~3~~	~~X~~										
058-072011	7-21-11	1030	G	W	3	X										
089-072011	7-21-11	1040	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Temp 3.0°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	1630 7-21-11	Fed-Ex 7949	9851	4279
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Ruth A Daughty	TA SAV	07.22.11 @ 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

2-5w sampling 3rd QTR 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-21-11	COC No: 072011
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	2 of 2 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0108-072011	7-21-11	1055	G	W	3	X										
081-072011	7-21-11	1110	G	W	3	X										
082-072011	7-21-11	1345	G	W	3	X										
080-072011	7-21-11	1400	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Temp 3.0°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	1630 7-21-11	Fed-ex 7949	9851 4279	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Beth Daughtry	TA SAV	07.22.11 @ 1000
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

WSW Sampling 5'+ CYTK 2011

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-22-11	COC No: 072211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5447.002
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
~~[illegible]~~	~~7-22-11~~	~~1015~~	~~G~~	~~W~~			~~X~~									
44FL-10A-072011	7-22-11	1015	G	W	2		X									
44FL-210A-072011	7-22-11	1015	G	W	2		X									
44FL-9A-072011	7-22-11	1045	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	7-22-11	Fed-ex 7950	0149	7970
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TA	7/23/11 940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

WSW Sampling 3rd QTR 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-22-11	COC No: 072211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-44FL-210A	7-22-11	1015	G	W	2	X										
44FL-10A-072011	7-22-11	1015	G	W	3	X										
44FL-210A-072011	7-22-11	1045	G	W	3	X										
44FL-9A-072011	7-22-11	1045	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	ECC	7-22-11	Fed-Ex 7973	3188 2858	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: Eddie Barnett	Company: TA-SAV	Date/Time: 07/23/11 0958

w/ sampling 5 QTR 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404

Groundwater samples

Chain of Custody Record

TestAmerica

Phone (912) 354 7858

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-22-11	COC No. 072211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			
(303) 298-7607 Phone	TAT if different from Below _____			SDG No. 200-6170 ~~220-6170~~ 07/25/11
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
PO#	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-44FL-210A	7-22-11	1015	G	W	2	X										
44FL-10A-072011	7-22-11	1015	G	W	3	X										
44FL-210A-072011	7-22-11	1045	G	W	3	X										
44FL-9A-072011	7-22-11	1045	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby O. H	ECC	7-22-11	Fed-Ex 7973	3188 2858	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: Eddie Barnett	Company: TA SAV	Date/Time: 07/23/11 0958

3-4 QTR WSW Sampling 2011

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

Chain of Custody Record

TestAmerica

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-25-11	COC No: 072511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			SDG No.
(303) 298-7607 Phone	TAT if different from Below _____			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
0114-072011	7-25-11	1350	G	W	2		X									

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1700 7-26-11	Fedex 7973	4268 5506	
Relinquished by:	Company:	Date/Time:	Received by:	Company: TA	Date/Time: 7/27/11 1030
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

3rd QTR GW Sampling 2011

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404
Phone (912) 354 7858

Groundwater samples

Chain of Custody Record

TestAmerica
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 7-25-11	COC No: 072511
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 5447.002
Lakewood, CO 80401	Calendar (C) or Work Days (W)			SDG No.
(303) 298-7607 Phone	TAT if different from Below			
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TKB-2 114-072011	7-25-11	1350	G	W	2	X										
0114-072011	7-25-11	1350	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:
TEMP 2.4°C

~~680-70790~~ KB

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby Hinz	ECC	7-26-11	Fed-Ex 7950 1150 9990		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by: Frances Swafford	Company: TAS	Date/Time: 07/27/11 09:20

TestAmerica Burlington
30 Community Drive
Suite 11
South Burlington, VT 5403
phone 802.660.1990 fax 802.660.1919

Groundwater samples

WSW SE 2011
3rd QTR

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 9-22-11	COC No: 092211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Jim Madison	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No.
Lakewood, CO 80401	Calendar (C) or Work Days (W) _____			5 447. 002
(303) 298-7607 Phone	TAT if different from Below _____			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	8260 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	TSS/SM 2540 D	Sample Specific Notes:
052C-B-092011	9-22-11	1300	G	W	3		X									X	
052C-092011	9-22-11	1300	G	W	2		X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☒ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

48 HR. TAT

TEMPS: 5.1°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1600 9-22-11	Fed-ex 7952	TA 4520	
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
				TABUR	09/23/11 1240
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Savannah
5102 LaRoche Ave.
Savannah, GA 31404

~~Groundwater samples~~

WSW SE 2011
3rd QTR

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Phone (912) 354 7858

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: John Ryder	Site Contact: Toby Hinz	Date: 9-22-11	COC No: 092211
ECC	Tel/Fax: (720) 232-6425	Lab Contact: Abbie Yant	Carrier: FedEx	1 of 1 COCs
1746 Cole Blvd Building 21, Suite 350	Analysis Turnaround Time			Job No. 200-7115
Lakewood, CO 80401	Calendar (C) or Work Days (W)			5447.002
(303) 298-7607 Phone	TAT if different from Below			SDG No.
(303) 298-7837 FAX	☐ 3 weeks			
Project Name: FNOP 5447.002	☐ 2 weeks			
Site: Former NOP	☐ 1 week			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	524.2 - VOCs	8330 - Explosives	6010B - Metals	6010B - Dissolved Metals	9060 - TOC	9060 - DOC	RSK175 - Dissolved Gases (CO_2)	RSK175 - Ethane, Ethene, Methane	SM 4500B+C Ammonia	9030B/9034 - Anions (Sulfide)	Sample Specific Notes:
TRB-252C-B-092011	9-22-11	1300	G	W	2	X										
052C-B-092011	9-22-11	1300	G	W	3	X										
052C-092011	9-22-11	1300	G	W	3	X										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☑ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* *Poison B* ☐ *Unknown* ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☒ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments:

24 Hour TAT

Temp 4.1°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Toby D. Hinz	ECC	1600 9-22-11	Fed-ex 7952	TA SAV	1734 5173
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
			Beth A Daughtry	TA SAV	09.23.11 @ 0931
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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Appendix B
Reference Sheet
Data Validation Qualifiers
Drinking Water Standards

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Data Qualifiers and Drinking Water Standards Reference Sheet
Former Nebraska Ordnance Plant, Mead, Nebraska

Any qualifiers (i.e. U, J, or R) listed after a result are assigned during the data validation process. Data validation is a procedure which involves the review of quality control data provided by the laboratory. This review is followed by the assignment of data qualifiers (if necessary) which indicate the reliability of a result to the reader. Data validation is performed by a chemist employed outside of the laboratory or associated government installations to ensure accuracy in data reporting. A description of qualifiers is provided below.

No qualifier

- If a result has no assigned qualifier, the contaminant was detected, and the reader can be confident that the concentration is exact.

"U"

- A result followed by a "U" qualifier means that the contaminant was undetected, or not detected by the instrument.

"UJ"

- A result followed by a "UJ" qualifier means that the contaminant was not detected, but the associated detection level is not certain (estimated). For example, if a value is followed by a "UJ", the contaminant was not detected, but the associated detection level is in question. The detection level is in question because one or more of the laboratory quality control indicators do not meet acceptance criteria. The amount that the indicator fell outside of the criteria may be used as a rough estimate of how much the actual detection level differs from the stated one. Typically, this is a 10-30% difference.

"UR"

- A result followed by a "UR" qualifier means that the contaminant was not detected, but there is strong doubt that the associated detection level is accurate. For example, if a value is followed by a "UR", the contaminant was not detected, but the associated detection level is in strong doubt. The detection level is in doubt because results are unacceptable for a quality control indicator. In this case, the detection level cannot be estimated.

"J"

- A result followed by only a "J" qualifier means that the contaminant was detected, but there is some question that the stated concentration is exact. For example, if a result is "0.5 J", the contaminant was detected, but there is some question that the concentration is exactly 0.5. A "J" qualifier may be applied for two reasons: (1) the contaminant was detected below the reporting limit; or (2) the contaminant was detected, but one or more quality control indicators did not meet acceptance criteria. The reporting limit is equal to the concentration of the lowest standard used by the laboratory to calibrate the instrument. The reporting limit is the minimum concentration that can be stated with complete confidence.

“R”

- A result followed by only an “R” qualifier means that the contaminant was detected, but there is strong doubt that the concentration is exact. For example, if a result is “0.5 R”, the contaminant was detected, but there is strong doubt that the concentration is exactly 0.5. The concentration is in doubt because results are unacceptable for a quality control indicator. In this case, the detected concentration cannot be estimated. For comparison purposes, detected results are reported in the results letters with available Environmental Protection Agency drinking water standards. These standards include the maximum contaminant level (MCL) and various health advisories (HA). A description of the drinking water standards is provided below.

“MCL”

- The maximum contaminant level is the highest concentration of a contaminant that is allowed in drinking water. Maximum contaminant levels are enforceable Federal standards.

“HA”

- Health advisories provide estimates of acceptable drinking water concentrations for a chemical substance based on health effects information. Health advisories are not enforceable Federal standards, but serve as a technical guidance to assist Federal, State, and local officials.

Appendix C
Analytical Results on Compact Disc Summary Forms and Raw Data

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Appendix F

Quality Control Summary Report Third Quarter 2011 Operations and Maintenance Sampling Events, Former Nebraska Ordnance Plant (on CD)

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Regional Office

1746 Cole Boulevard
Building 21, Suite 350
Lakewood, CO 80401

Phone: 303.298.7607
Fax: 303.298.7837

November 18, 2011

U.S. Army Corps of Engineers, Kansas City District
Attn: Jerry Montgomery
601 East 12th Street
Kansas City, MO 64106-2896

Re: Transmittal of Final Quality Control Summary Report
Third Quarter 2011 Operations and Maintenance Sampling Events
Former Nebraska Ordnance Plant, Mead, Nebraska
Contract No. W912DQ-08-D-0001, Task Order No. 0002

Dear Mr. Montgomery:

ECC is hereby transmitting one electronic copy of the Final Quality Control Summary Report for the Third Quarter 2011 Operations and Maintenance Sampling Events at the former Nebraska Ordnance Plant, Mead, Nebraska.

Please contact Mr. Brady Bigelow or me if you require additional information.

Sincerely,

John Ryder
Project Chemist
ECC

Enclosures
cc: Ms. Kristine Stein (USACE)
Mr. Jason L'Ecuyer (USACE)
Mr. Bradley Brink (USACE)
Mr. Kirk Boese (USACE)
Ms. Jacqy Frazier (USACE)

Corporate Office

1240 Bayshore Highway
Burlingame, CA 94010

Phone: 650.347.1555
Fax: 650.347.8789
www.ecc.net

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE: November 18, 2011	TRANSMITTAL NO. 2011-092

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by contractor)

Attn: Jerry Montgomery USACE, Kansas City District 601 E. 12th St. Kansas City, MO 64106-2896	FROM: John Ryder ECC 1746 Cole Blvd, Bldg 21, Lakewood, CO 80401	CONTRACT NO. W912DQ-08-D-0001, Task Order 0002	CHECK ONE: __X__ THIS IS A NEW TRANSMITTAL ____ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SECTION NO. (cover only one section with each transmittal)	PROJECT TITLE AND LOCATION: Groundwater Monitoring Program, Former Nebraska Ordnance Plant, Mead, Nebraska		CHECK ONE: ___ FIO __X__ For Govt. Approval

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model number, etc.)* *b.*	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction No. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*	FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruc. no. 6)* *h.*	FOR C E USE CODE *i.*
1	Quality Control Summary Report - Final		1 electronic					
	Third Quarter 2011 Operations and Maintenance (O&M) Sampling Events							

REMARKS
Kristine Stein (USACE)
Jason L'Ecuyer (USACE)
Bradley Brink (USACE)
Kirk Boese (USACE)
Jacqy Frazier (USACE)

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.
John Ryder, Denver Operations Group

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by Item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

FINAL
QUALITY CONTROL SUMMARY REPORT
THIRD QUARTER 2011

OPERATIONS AND MAINTENANCE PROGRAM
SAMPLING EVENTS

FORMER NEBRASKA ORDNANCE PLANT
MEAD, NEBRASKA

Prepared for

United States Army Corps of Engineers
Kansas City District

November 2011

ECC
1746 Cole Boulevard, Suite 350
Lakewood, Colorado 80401

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Quality Control Summary Report
Third Quarter 2011 Operations and Maintenance Sampling Events
Former Nebraska Ordnance Plant
Mead, Nebraska

1.0 INTRODUCTION

Sampling was conducted at the Main Groundwater Treatment Plant (GTP), Groundwater Circulation Well 1 (GCW-1), Load Line (LL) 1 GTP, LL4 GTP, and the Advanced Oxidation Process (AOP) GTP for the Operations and Maintenance (O&M) program at the former Nebraska Ordnance Plant (NOP), near Mead, Nebraska. Sampling activities were performed in accordance with the *Site Wide Work Plan, Support Services, Operable Unit No. 2 (Groundwater), Former Nebraska Ordnance Plant, Mead, Nebraska* (ECC, 2009). This Quality Control Summary Report is a summary of the chemical data quality review for the Third Quarter 2011 monthly sampling events.

Samples were analyzed for one or more of the following constituents:

- Volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) SW-846 Method 8260B;
- Trichloroethene (TCE) by EPA Compendium Method TO-15;
- Explosives by EPA SW-846 Method 8330;
- Metals (iron [Fe] and manganese [Mn]) by EPA SW-846 Method 6010B;
- Total Suspended Solids (TSS) by Method SM2540D;
- Total Organic Carbon (TOC) by EPA SW-846 Method 9060; and
- Nitrate by SW-846 Method 9056.

The analyses were performed by TestAmerica of South Burlington, Vermont, except for the nitrate samples which were analyzed by TestAmerica of Denver, Colorado.

The chain-of-custody (COC) and field notes are included as Appendices A and B, respectively. Appendix C presents an explanation of data validation qualifiers and drinking water standards. Appendix D contains a compact disk with all analytical data.

2.0 FIELD SAMPLING ACTIVITIES

During the Third Quarter 2011 O&M sampling events the following field samples were collected:

- Water samples were collected from each of the following extraction wells (EW) and focused extraction wells (FEW) during the Third Quarter 2011 O&M sampling event: EW-1, EW-3, EW-4, EW-6, EW-7, EW-9, FEW-11, FEW-14, and EW-16. All FEW-15 samples are collected at the LL4 GTP influent sample location.

- During July 2011, one water sample was collected from each of the following granular activated carbon (GAC) units: 320, 340, 360, and 380.
- During August 2011(July 28, 2011), one water sample was collected from the following GAC units: 310, 330, 350, and 380.
- During September 2011, one water sample was collected from the following GAC units: 310, 330, and 350.
- One influent water sample and one effluent water sample were collected from the Main GTP during each month of this quarter.
- One influent water sample and one effluent water sample were collected from GCW-1 on September 1, 2011.
- One influent sample and one effluent sample were collected from the LL1 GTP during each month of this quarter as well as two field duplicate samples (one influent sample and one effluent sample) during August 2011.
- One effluent air sample was collected at the LL1 GTP during August 2011.
- One influent sample and one effluent sample were collected from the LL4 GTP during each month of this quarter.
- One effluent air sample was collected at the LL4 GTP during September 2011.
- One influent sample and one effluent sample were collected from the AOP GTP during each month of this quarter with the exception of the August sampling event. Only the effluent sample was collected in August because the associated influent water sample was collected from FEW-11.

A trip blank was included in each shipment that contained field samples scheduled for analysis of VOCs. The required frequency of collection for quality control (QC) samples (field duplicate and matrix spike/matrix spike duplicate [MS/MSD]) is one per quarter. At least one QC field duplicate sample and one MS/MSD for each parameter, except TSS, were collected for the Main GTP and LL1 GTP sampling events. Field duplicates and MS/MSD samples were not collected for the AOP GTP or LL4 GTP sampling events. The required frequency was met for overall Third Quarter 2011 O&M sampling events.

Table 2-1 provides the sample collection information for the O&M sampling events listed by date sampled and laboratory sample identification (ID) for comparison to laboratory data packages and field notes:

- QC split sample information;
- MS/MSD sample information;
- A cross-reference between laboratory sample IDs and field sample IDs;
- Laboratory sample delivery group (SDG) numbers;
- COC numbers;
- Dates of sample collection and sample receipt by the laboratory; and
- Requested analyses.

3.0 DATA QUALITY EVALUATION PROCEDURES

The following subsections present results of the data quality evaluation. This evaluation was performed in accordance with *Mead Validation Guidelines* (ECC, 2007, approved by United States Army Corps of Engineers [USACE] 2007). Qualifiers were only assigned based on project QC limits and laboratory QC criteria. The data quality evaluation results are presented in Table 3-1.

3.1 Sample Receipt at the Laboratory

The samples were properly preserved and in good condition, and the sample coolers were received within the recommended temperature range of 4 ± 2° C.

3.2 Holding Times

All samples were prepared and analyzed within the required holding times.

3.3 Tuning and Calibration

According to the *Mead Validation Guidelines* (ECC, 2007), assessment of tune and calibration information is assessed using the laboratory case-narrative or summary forms. No deviations for the calibration and tuning of pertinent instrumentation were reported by the laboratory in the case narrative and evaluation of the calibration summary forms indicated that all project criteria were met.

3.4 Laboratory Blanks

A laboratory method blank is an analyte-free matrix that is carried through the entire preparation and analysis sequence for the purpose of identifying potential contamination introduced during preparation and analysis. Method blanks were analyzed for each sample batch for all analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections were qualified as non-detect (U) if the concentration in the sample was less than 5 times the concentration in the associated blank. For common laboratory contaminants, results were qualified as described above if the concentration in the sample was less than 10 times the concentration in the associated blank. Sample results that were either non-detect (U), or greater than 5 or 10 times the blank result did not require qualification.

Methylene chloride, *trans*-1,2-dichloroethene, TCE, and/or vinyl chloride were detected in one or more of the VOC method blanks. Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-2 presents the QC outliers and associated samples for all assigned qualifiers. These qualifiers were not used to determine analytical completeness or project completeness (Section 4.0).

Mn and TOC were detected in method blanks; however, no qualifiers were added to the results because they were either not detected in the associated samples or the sample results exceeded 5 times the levels in the blank. Refer to Table 3-1 for data quality evaluation results and qualified samples. Tables 3-4 and 3-5 presents the QC outliers and associated samples.

3.5 Trip Blanks

A trip blank is an analyte-free matrix that accompanies samples through the sample collection and transportation process to identify potential VOC contamination. In accordance with the *Mead Validation Guidelines* (ECC, 2007), detections were qualified as non-detect (U) if the concentration in the sample was less than 5 times the concentration in the associated blank. Sample results that were either non-detect (U), or greater than 5 times the blank result did not require qualification.

There were no detections of target analytes in any of the VOC trip blanks.

3.6 Surrogates

Surrogates are compounds not normally found in the environment that are added (spiked) into samples prior to extraction (for extractable methods) and prior to analysis (for non-extractable methods). The percent recovery (% REC) of each surrogate is used to assess the success of the sample preparation process for an individual sample. Samples spiked with surrogate compounds were analyzed for VOCs and explosives.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects and UJ-coded for non-detects if the surrogate % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for associated analytes in the affected samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects.

The % REC for the surrogate compound 1,2-dinitrobenzene on the confirmation column in the explosive analysis of various samples and QC samples exceeded the laboratory QC limits. However, no action was required because all associated results were reported from the primary column which met all % REC criteria for these samples.

3.7 Laboratory Control Sample / Laboratory Control Sample Duplicate

A laboratory control sample (LCS) consists of a matrix, similar to that of the field sample, which is spiked with known concentrations of analytes. The LCS % REC is a measure of the accuracy of the preparation and analytical methods. The laboratory control sample duplicate (LCSD) is a duplicate preparation and analysis of the LCS. The differences between the LCS and LCSD recoveries are used to calculate the relative percent difference (RPD), which is a measure of the precision of the preparation and analytical methods. LCS samples were analyzed for each sample batch for all analyses. LCSD samples were requested for analysis with each analytical batch that did not contain an MS/MSD.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the LCS % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects if the % RECs are greater than the QC limits. No action is required for non-detects. Additionally, results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds 30%.

One LCS %REC for *cis*-1,2-dichloroethene was above the laboratory QC limit resulting in a qualification a detect in a sample. Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-2 presents the QC outliers and associated samples for all assigned qualifiers. All other LCS and LCSD % RECs were within laboratory QC limits and all RPDs, if applicable, were less than 30%.

3.8 Matrix Spike / Matrix Spike Duplicate Analyses

MS and MSD samples are analyzed for organic and inorganic analyses. A field sample is split into three portions (original, MS, and MSD) and known amounts of analytes are added (spiked) into the MS and MSD portions of the sample. The analytical results of these two portions are compared to each other for reproducibility using the RPD. These results are also compared against the un-spiked portion of the sample for % REC of the spiked analytes. MS/MSD samples were analyzed for VOCs, TOC, explosives, nitrate, and metals.

For organic analyses:
In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects and UJ-coded for non-detects if the MS/MSD % RECs are below the laboratory QC limits, but greater than 10%. Non-detects are R-coded if % RECs are less than 10%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the parent sample are J-coded for detects if the MS/MSD % RECs are greater than the QC limits. No action is required for non-detects. Additionally, results for the affected analyte in the associated parent samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds the QC limit.

One MS %REC for *cis*-1,2-dichloroethene was above the laboratory QC limit resulting in the qualification of a detect in a sample. Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-2 presents the QC outliers and associated samples for all assigned qualifiers. All other % RECs and all RPDs were within QC limits.

For inorganic analyses:
In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the MS/MSD % RECs are below 75%, but greater than 30%. Non-detects are R-coded if % RECs are less than 30%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects if the MS/MSD % RECs are greater than the QC limits. No action is required for non-detects. Additionally, results for the

affected analyte in the associated samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds 20%.

All % RECs and RPDs were within QC limits.

For wet chemistry analyses:
In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated parent samples are J-coded for detects and UJ-coded for non-detects if the MS/MSD % RECs are below the laboratory limits, but greater than 30%. Non-detects are R-coded if % RECs are less than 30%. Also in accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated parent samples are J-coded for detects if the MS/MSD % RECs are greater than the laboratory QC limits. No action is required for non-detects. Additionally, results for the affected analyte in the associated parent samples are J-coded for detects and UJ-coded for non-detects if the RPD exceeds the laboratory QC limit.

All % RECs and RPDs were within QC limits.

3.9 Field Duplicate Results

Field duplicate results provide information on the ability to reproduce field sample results and account for error introduced from handling, shipping, storage, preparation, and analysis of field samples. Five field duplicate pairs were collected during the Third Quarter 2011 monthly O&M sampling events. The field duplicate pairs are listed below:

- 5447-0811-INF-126 / 5447-0811-2INF-126 (VOC, Explosives, TSS, TOC);
- 5447-0811-EFF-126 / 5447-0811-2EFF-126 (Nitrate);
- 5447-0811-LL1-INF-070 / 5447-0811-LL1-2INF-070 (VOC, Explosives, TSS, TOC, Metals);
- 5447-0811-LL1-EFF-070 / 5447-0811-LL1-2EFF-070 (Nitrate); and
- 5447-0811-LL1-AIR-EFF-070 / 5447-0811-LL1-2AIR-EFF-070 (VOC).

All field duplicate pairs met the precision criteria. In accordance with the *Mead Validation Guidelines* (ECC, 2007), data are not qualified based on field duplicate sample results. Note: Field duplicate results are considered acceptable when one result is not detected and the other result is detected below the limit of quantitation (LOQ).

3.10 Laboratory Duplicate Results

Laboratory duplicate results provide information on the ability of the laboratory to reproduce field sample results and account for error introduced by the laboratory during the preparation and analysis of field samples. Laboratory duplicates were analyzed for the inorganic analyses. Matrix spike duplicates and/or laboratory control sample duplicates were also analyzed for all method analyses.

In accordance with the *Mead Validation Guidelines* (ECC, 2007), results for the affected analyte in the associated samples are J-coded for detects and non-detects due to elevated duplicate RPDs.

All laboratory duplicate RPDs were acceptable.

3.11 Serial Dilution

A serial dilution (SD) is a split of the field sample that is diluted by a known dilution factor. The SD is prepared and analyzed by the same method as the field sample. The diluted results from the SD are compared to the results from the original sample to determine the percent difference (%D) between the two values. The SD is used as a matrix-specific QC element performed on metals methods for one or more associated samples. At least one SD sample was analyzed for each sample batch for metals**.**

All serial dilution %Ds were within applicable limits.

3.12 Dilutions and Reanalyses

Qualifiers assigned as a result of calibration range exceedance are not used in the calculation of analytical data completeness percentages if there are acceptable results from diluted sample analyses.

Seven water samples for VOC analysis and one water sample for explosives analysis required a secondary dilution analysis due to concentrations of TCE or hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) above the calibration range. According to the *Mead Validation Guidelines* (ECC, 2007) results exceeding the calibrations range are not used for reporting or project decisions when acceptable results from dilutions are available. Therefore, the secondary diluted concentrations should be used for TCE and/or RDX and the initial analysis should be used for all other sample results.

3.13 Other QC Parameters

All detected explosive results were confirmed on a second column. A column comparison between the detected explosive results was made using explosive identification summary forms. The validator confirmed all reported explosive detections for both columns and the intercolumn RPDs.

Detected results with the intercolumn RPDs exceeding 40% are qualified as estimated (J). Refer to Table 3-1 for data quality evaluation results and qualified samples. Table 3-3 presents the Explosives QC outliers and associated samples for all assigned qualifiers. These qualifiers were not used to determine analytical completeness or project completeness as no corrective action was required by the laboratory (Section 4.0).

3.14 Laboratory Qualifiers

Analytes detected below the LOQ, but above the detection limit were quantified and results were assigned an estimated (J) qualifier by the laboratory. These qualifiers were carried over by the validator and were not used to determine analytical or project completeness. See Section 4.0.

4.0 OVERALL ASSESSMENT

The following subsections discuss the field completeness, analytical completeness, and project completeness determinations for the Third Quarter 2011 O&M sampling events. An evaluation of field, analytical, and project completeness is presented in Tables 4-1 through 4-3.

4.1 Field Completeness

Field completeness is assessed by comparing the number of samples properly collected to the number of samples planned for collection. Field completeness is presented Tables 4-1 for the O&M sampling events.

Field completeness for the O&M sampling events were 100% for each method because all scheduled samples were collected. The overall field completeness percentage is therefore 100% for the Third Quarter 2011 O&M sampling events. All field completeness percentages exceed the field completeness goal of 95%. Section 2.0 presents the field sampling activities, including any deviations from planned sampling.

4.2 Analytical Completeness

Analytical completeness was calculated as both acceptable data completeness and quality data completeness. Analytical completeness is presented in Tables 4-2. The overall acceptable data completeness percentage goal is 95% (90% for each method), and the overall quality data completeness percentage goal is 80%.

Acceptable data completeness is a measure of laboratory contract compliance. Acceptable data includes data that have not been rejected or qualified as estimated (J). Qualified data are considered acceptable if corrective action is not required or appropriate corrective actions were taken by the laboratory. Acceptable data completeness percentages are as follows:

- VOCs: 99.6%
- Explosives: 100%
- TOC: 100%
- TSS: 100%
- Nitrate: 100%
- Metals: 100%

All analyses met the 90% criteria for the individual methods, and the overall acceptable data completeness met the 95% criteria for the sampling events.

Quality data is a measure of the percentage of usable data points. Usable data points include all non-rejected data. Rejected data points with replacement data do not count against the quality data completeness. No data were rejected for the Third Quarter 2011 O&M sampling events. The quality data completeness percentage for VOCs, explosives, wet chemistry, and metals, considered separately, is 100%. Overall quality data completeness is 100% for the O&M sampling events.

4.3 Project Completeness

Project completeness combines sampling and analytical protocols to assess the expectations of the project as a whole. Project completeness is determined by comparing the percentage of samples/measurements that are determined to be usable to the total number of samples/ measurements planned. Project completeness is calculated using the field completeness and analytical completeness (quality data) percentages.

The O&M project completeness percentages are 100%, which exceed the project completeness goal of 90%. Tables 4-3 presents project completeness values.

5.0 CONCLUSIONS

No data points were qualified as rejected (R). Data are valid for use, as qualified. Overall field completeness is 100%. Overall quality data completeness is 100% which is above the quality data completeness goal of 80%. Project completeness exceeded the project completeness goal of 90%.

Seven results for TCE and one result for RDX were reported from a secondary dilution. One result for cis-1,2-dichloroethene was qualified as estimated due to high LCS and MS %RECs and eight VOC results were qualified as non-detects due to method blank contamination. Additionally, 12 explosive results were qualified as estimated for intercolumn RPDs exceedances.

6.0 REFERENCES

ECC, 2009, *Site Wide Work Plan, Support Services, Operable Unit No. 2 (Groundwater), Former Nebraska Ordnance Plant, Mead, Nebraska* (ECC, 2009).

ECC, 2007 *Mead Validation Guidelines*, (approved by USACE 2007)

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Tables

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List of Acronyms for Tables

Term	Definition
mg/L	milligrams per liter
µg/L	micrograms per liter
AOP	Advanced Oxidation Process
BLK	blank
C	Celsius
CAL	calibration
CCB	continuing calibration blank
CCV	continuing calibration verification
C-RPD	column relative percent difference
EFF	effluent
EW	extraction well
FEW	focused extraction well
GC/MS	gas chromatography–mass spectrometry
GCW	groundwater circulation well
HPLC	high-performance liquid chromatography
ICP	inductively coupled plasma
ICV	initial calibration verification
ID	identification/identifier
INF	influent
IS	internal standard
J	estimated
Lab	laboratory
LCS	laboratory control sample
LL	Load Line
MDL	method detection limit
MS/MSD	matrix spike/matrix spike duplicate
MS	mass-spectrometry
QC	Quality Control
%REC	percent recovery
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
Samp	sample
SDG	sample delivery group
SURR	surrogate
TOC	total organic carbon
TR	trace level detect
TSS	total suspended solids
U	not detected at laboratory limit of detection
UCL	upper control limit
UJ	qualified as estimated and not detected at laboratory limit of detection
VOC	volatile organic compound

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Table 2-1
Sample Collection Summary
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Nitrate	Explosives	Metals	TOC	TSS	Volatiles	Volatiles-Air
Field Samples													
5447-0711-INF-125			6/27/2011	6/27/2011	200-5746-1	5746		•				•	
5447-0711-EFF-125			6/27/2011	6/27/2011	200-5746-2	5746		•				•	
5447-0711-EFF-125	5447-0711-EFF-125		7/5/2011	7/6/2011	200-5866-14	5866-1	•						
5447-0811-INF-126	5447-0811-INF-126		7/28/2011	7/29/2011	200-6258-13	6258		•		•	•	•	
		5447-0811-2INF-126	7/28/2011	7/29/2011	200-6258-14	6258		•		•	•	•	
5447-0811-EFF-126	5447-0811-EFF-126		8/3/2011	8/4/2011	200-6366-2	6366	•	•				•	
		5447-0811-2EFF-126	8/3/2011	8/4/2011	200-6366-6	6366	•						
5447-0911-INF-127			9/1/2011	9/2/2011	200-6821-1	6821		•				•	
5447-0911-EFF-127	5447-0911-EFF-127		9/1/2011	9/2/2011	200-6821-5	6821	•	•				•	
5447-0711-320-125			7/5/2011	7/6/2011	200-5866-1	5866-1		•				•	
5447-0711-340-125			7/5/2011	7/6/2011	200-5866-2	5866-1		•				•	
5447-0711-360-125			7/5/2011	7/6/2011	200-5866-3	5866-1		•				•	
5447-0711-380-125			7/5/2011	7/6/2011	200-5866-4	5866-1		•				•	
5447-0811-310-126			7/28/2011	7/29/2011	200-6258-15	6258		•				•	
5447-0811-330-126			7/28/2011	7/29/2011	200-6258-16	6258		•				•	
5447-0811-350-126			8/3/2011	8/4/2011	200-6366-1	6366		•				•	
5447-0811-380-126			7/28/2011	7/29/2011	200-6258-18	6258		•				•	
5447-0911-310-127			9/1/2011	9/2/2011	200-6821-2	6821		•				•	
5447-0911-330-127			9/1/2011	9/2/2011	200-6821-3	6821		•				•	
5447-0911-350-127			9/1/2011	9/2/2011	200-6821-4	6821		•				•	
5447-0711-LL1-INF-069			7/5/2011	7/6/2011	200-5866-8	5866-2						•	
5447-0711-LL1-EFF-069			7/5/2011	7/6/2011	200-5866-9	5866-2						•	
5447-0811-LL1-INF-070	5447-0811-LL1-INF-070		7/28/2011	7/29/2011	200-6269-1	6269		•	•	•	•	•	
		5447-0811-LL1-2INF-070	7/28/2011	7/29/2011	200-6269-2	6269		•	•	•	•	•	
5447-0811-LL1-EFF-070	5447-0811-LL1-EFF-070		7/28/2011	7/29/2011	200-6269-3	6269	•	•				•	
		5447-0811-LL1-2EFF-070	7/28/2011	7/29/2011	200-6269-5	6269	•						
5447-0911-LL1-INF-071			9/1/2011	9/2/2011	200-6823-1	6823						•	
5447-0911-LL1-EFF-071			9/1/2011	9/2/2011	200-6823-2	6823	•					•	
5447-0811-LL1-AIR-EFF-070			7/28/2011	7/29/2011	200-6290-1	6290							•
		5447-0811-LL1-2AIR-EFF-070	7/28/2011	7/29/2011	200-6290-2	6290							•

Table 2-1
Sample Collection Summary
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Nitrate	Explosives	Metals	TOC	TSS	Volatiles	Volatiles-Air
5447-0711-AOP-INF-049			7/5/2011	7/6/2011	200-5866-5	5866-1		•				•	
5447-0711-AOP-EFF2-049			7/5/2011	7/6/2011	200-5866-6	5866-1		•				•	
5447-0811-AOP-EFF2-044			7/28/2011	7/29/2011	200-6258-11	6258		•				•	
5447-0911-AOP-INF-051			9/1/2011	9/2/2011	200-6821-6	6821		•				•	
5447-0911-AOP-EFF2-051			9/1/2011	9/2/2011	200-6821-7	6821		•				•	
5447-0711-LL4-INF			7/5/2011	7/6/2011	200-5866-11	5866-3						•	
5447-0711-LL4-EFF			7/5/2011	7/6/2011	200-5866-12	5866-3						•	
5447-0811-LL4-INF			8/15/2011	8/16/2011	200-6561-1	6561		•	•	•	•	•	
5447-0811-LL4-EFF	5447-0811-LL4-EFF		8/15/2011	8/16/2011	200-6561-2	6561	•	•				•	
5447-0911-LL4-INF			9/1/2011	9/2/2011	200-6825-1	6825						•	
5447-0911-LL4-EFF			9/1/2011	9/2/2011	200-6825-2	6825	•					•	
5447-0911-LL4-AIR-EFF			9/1/2011	9/2/2011	200-6852-1	6852							•
5447-0811-EW01-126			7/27/2011	7/29/2011	200-6258-1	6258						•	
5447-0811-EW03-126			7/27/2011	7/29/2011	200-6258-2	6258		•					
5447-0811-EW04-126			7/27/2011	7/29/2011	200-6258-3	6258		•					
5447-0811-EW06-126			7/27/2011	7/29/2011	200-6258-4	6258		•					
5447-0811-EW07-126			7/27/2011	7/29/2011	200-6258-5	6258		•					
5447-0811-EW09-126			7/27/2011	7/29/2011	200-6258-6	6258		•					
5447-0811-EW09-126A			7/27/2011	7/29/2011	200-6258-7	6258		•					
5447-0811-EW14-126			7/27/2011	7/29/2011	200-6258-9	6258		•					
5447-0811-EW11-126			7/27/2011	7/29/2011	200-6258-8	6258		•		•		•	
5447-0811-EW16-126			7/27/2011	7/29/2011	200-6258-10	6258		•					
GCW1-INF-092011			9/1/2011	9/2/2011	200-6821-8	6821						•	
GCW1-EFF-092011			9/1/2011	9/2/2011	200-6821-9	6821						•	

Table 2-1
Sample Collection Summary
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field ID	MS/MSD Samples	Field Duplicate Samples	Date Sampled	Date Received by Lab	Lab ID	SDG	Nitrate	Explosives	Metals	TOC	TSS	Volatiles	Volatiles-Air
Trip Blanks													
TRB-2INF-072011			6/27/2011	6/27/2011	200-5746-3	5746						•	
TRB-2320-072011			7/5/2011	7/6/2011	200-5866-7	5866-1						•	
TRB-LL1-2INF-072011			7/5/2011	7/6/2011	200-5866-10	5866-2						•	
TRB-LL4-2INF-072011			7/5/2011	7/6/2011	200-5866-13	5866-3						•	
TRB-2EW01-082011			7/27/2011	7/29/2011	200-6258-12	6258						•	
TRB-LL1-2INF-082011			7/28/2011	7/29/2011	200-6269-4	6269						•	
TRB-2350-082011			8/3/2011	8/4/2011	200-6366-3	6366						•	
TRB-LL4-2INF-082011			8/15/2011	8/16/2011	200-6561-3	6561						•	
TRB-2INF-092011			9/1/2011	9/2/2011	200-6821-10	6821						•	
TRB-LL1-2INF-092011			9/1/2011	9/2/2011	200-6823-3	6823						•	
TRB-LL4-2INF-092011			9/1/2011	9/2/2011	200-6825-3	6825						•	

Notes:

TOC	SW9060	Total Organic Carbon
TSS	A2540D	Total Suspended Solids Dried at 103-105 'C
Volatiles	SW8260B	Volatile Organic Compounds by Capillary GC/MS
Nitrate	SW9056	Anion Chromatography
Explosives	SW8330	Nitroaromatics and Nitramines by HPLC
Metals	SW6010B	Trace Metals by ICP
Volatiles-Air	TO15	The Determination fo Volatile Organic Compounds in Air Collected in Specially-Prepared Canisters and Analyzed by GC/MS

• = Requested for the indicated analyses

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Table 3-1
Data Quality Evaluation Results
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant

Sample Identification	Date Sampled	SDG	Lab Number	Analysis	Parameter	Units	Lab Result	Data Review Qualifier	%REC	BLK	C_RPD	Comments	Final Result
5447-0711-AOP-EFF2-049	7/5/2011	5866-1	200-5866-6	Explosives	1,3,5-Trinitrobenzene	µg/L	0.035	J			X	Column RPD	0.035 J
5447-0711-AOP-EFF2-049	7/5/2011	5866-1	200-5866-6	Explosives	2,4,6-Trinitrotoluene	µg/L	0.12	J			X	Column RPD	0.12 J
5447-0711-AOP-INF-049	7/5/2011	5866-1	200-5866-5	Explosives	2,4,6-Trinitrotoluene	µg/L	0.11	J			X	Column RPD	0.11 J
5447-0711-AOP-INF-049	7/5/2011	5866-1	200-5866-5	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.038	J			X	Column RPD	0.038 J
5447-0711-AOP-INF-049	7/5/2011	5866-1	200-5866-5	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.91	J			X	Column RPD	0.91 J
5447-0811-2INF-126	7/28/2011	6258	200-6258-14	Volatiles	trans-1,2-Dichloroethene	µg/L	0.53	U		X		Lab Blank	0.53 U
5447-0811-2INF-126	7/28/2011	6258	200-6258-14	Volatiles	Vinyl Chloride	µg/L	0.31	U		X		Lab Blank	0.31 U
5447-0811-310-126	7/28/2011	6258	200-6258-15	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.032	J			X	Column RPD	0.032 J
5447-0811-310-126	7/28/2011	6258	200-6258-15	Volatiles	Trichloroethene	µg/L	0.47	U		X		Lab Blank	0.47 U
5447-0811-330-126	7/28/2011	6258	200-6258-16	Volatiles	Trichloroethene	µg/L	0.29	U		X		Lab Blank	0.29 U
5447-0811-350-126	8/3/2011	6366	200-6366-1	Explosives	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	µg/L	0.031	J			X	Column RPD	0.031 J
5447-0811-350-126	8/3/2011	6366	200-6366-1	Volatiles	Trichloroethene	µg/L	0.32	U		X		Lab Blank	0.32 U
5447-0811-AOP-EFF2-044	7/28/2011	6258	200-6258-11	Explosives	2,4,6-Trinitrotoluene	µg/L	0.097	J			X	Column RPD	0.097 J
5447-0811-AOP-EFF2-044	7/28/2011	6258	200-6258-11	Volatiles	Trichloroethene	µg/L	1.3	U		X		Lab Blank	1.3 U
5447-0811-EFF-126	8/3/2011	6366	200-6366-2	Volatiles	Trichloroethene	µg/L	0.27	U		X		Lab Blank	0.27 U
5447-0811-EW01-126	7/27/2011	6258	200-6258-1	Volatiles	trans-1,2-Dichloroethene	µg/L	0.33	U		X		Lab Blank	0.33 U
5447-0811-EW11-126	7/27/2011	6258	200-6258-8	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.028	J			X	Column RPD	0.028 J
5447-0811-EW11-126	7/27/2011	6258	200-6258-8	Volatiles	cis-1,2-Dichloroethylene	µg/L	5.6	J	X			LCS - high, MS - high	5.6 J
5447-0911-AOP-EFF2-051	9/1/2011	6821	200-6821-7	Explosives	2,4,6-Trinitrotoluene	µg/L	0.11	J			X	Column RPD	0.11 J
5447-0911-AOP-INF-051	9/1/2011	6821	200-6821-6	Explosives	2-Amino-4,6-Dinitrotoluene	µg/L	0.049	J			X	Column RPD	0.049 J
5447-0911-AOP-INF-051	9/1/2011	6821	200-6821-6	Explosives	4-Amino-2,6-Dinitrotoluene	µg/L	0.95	J			X	Column RPD	0.95 J

Reason for Qualification

%REC	LCS - low, LCS - high, MS - low, MS - high
BLK	Ambient Blank, Lab Blank, CCB, CCB - Neg, Trip Blank, Equipment Blank, Field Blank, Material Blank, Lab Blank - Neg
C_RPD	Column RPD
CAL	CCV, CCV RRF, Initial Calibration RRF, Initial Calibration RSD, ICV
IS_Surr	Internal standard, Surrogate recovery outside project limits.
OTHER	An analyte (non-common laboratory artifact) was detected in the sample at a concentration less than 5X the concentration detected in the associated method blank., Analyte not confirmed on second column,
RPD	Lab Replicate RPD, MS RPD, LCS RPD
SAMP	Cooler temperature greater than 10 degreec C., Cooler temperature greater than 4 degrees C, but less than 10 degreec C., Encore sample holding time exceeded by less than 2X., Encore sample holding time

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Table 3-2
VOC Quality Control Outliers
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Blank					
5447-0711-320-125	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-340-125	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-360-125	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-380-125	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-AOP-EFF2-049	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-AOP-INF-049	5866-1	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-LL1-EFF-069	5866-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-LL1-INF-069	5866-2	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-LL4-EFF	5866-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0711-LL4-INF	5866-3	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.17 µg/L
5447-0811-2INF-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-2INF-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-310-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-310-126	6258	Trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
5447-0811-310-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-330-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-330-126	6258	Trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
5447-0811-330-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-350-126	6366	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
5447-0811-350-126	6366	Trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
5447-0811-350-126	6366	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
5447-0811-380-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-380-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-AOP-EFF2-044	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-AOP-EFF2-044	6258	Trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.37 µg/L
5447-0811-AOP-EFF2-044	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-EFF-126	6366	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.47 µg/L
5447-0811-EFF-126	6366	Trichloroethene	Lab Blank > MDL	< 0.2 µg/L	0.26 µg/L
5447-0811-EFF-126	6366	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.36 µg/L
5447-0811-EW01-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-EW01-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0811-EW11-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-EW11-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L

Table 3-2
VOC Quality Control Outliers
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
5447-0811-INF-126	6258	trans-1,2-Dichloroethene	Lab Blank > MDL	< 0.24 µg/L	0.35 µg/L
5447-0811-INF-126	6258	Vinyl Chloride	Lab Blank > MDL	< 0.24 µg/L	0.25 µg/L
5447-0911-310-127	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-330-127	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-350-127	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-AOP-EFF2-051	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-AOP-INF-051	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-EFF-127	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-INF-127	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
5447-0911-LL1-EFF-071	6823	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
5447-0911-LL1-INF-071	6823	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
5447-0911-LL4-EFF	6825	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.19 µg/L
5447-0911-LL4-INF	6825	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
GCW1-EFF-092011	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
GCW1-INF-092011	6821	Methylene Chloride	Lab Blank > MDL	< 0.17 µg/L	0.18 µg/L
LCS Recovery					
5447-0811-2INF-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-310-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-330-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-380-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-AOP-EFF2-044	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-EW01-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-EW11-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
5447-0811-INF-126	6258	cis-1,2-Dichloroethene	Laboratory Control Sample exceeds UCL	80 - 115 %	118 %
MS Recovery					
5447-0811-INF-126	6258	cis-1,2-Dichloroethene	Matrix Spike exceeds UCL	80 - 115 %	118 %

Table 3-3
Explosives Quality Control Outliers
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Confirmation Column Difference					
5447-0711-AOP-EFF2-049	5866-1	1,3,5-Trinitrobenzene	Confirmation Column Difference exceeds UCL	< 40 RPD	49.5 RPD
5447-0711-AOP-EFF2-049	5866-1	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	71.2 RPD
5447-0711-AOP-INF-049	5866-1	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	124 RPD
5447-0711-AOP-INF-049	5866-1	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	115 RPD
5447-0711-AOP-INF-049	5866-1	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	49.0 RPD
5447-0811-310-126	6258	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	43.9 RPD
5447-0811-350-126	6366	Hexahydro-1,3,5-Trinitro-1,3,5-Triazine	Confirmation Column Difference exceeds UCL	< 40 RPD	48.8 RPD
5447-0811-AOP-EFF2-044	6258	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	83.2 RPD
5447-0811-EW11-126	6258	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	90.2 RPD
5447-0911-AOP-EFF2-051	6821	2,4,6-Trinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	76.7 RPD
5447-0911-AOP-INF-051	6821	2-Amino-4,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	121 RPD
5447-0911-AOP-INF-051	6821	4-Amino-2,6-Dinitrotoluene	Confirmation Column Difference exceeds UCL	< 40 RPD	51.0 RPD

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Table 3-4
Metals Quality Control Outliers
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Blank					
5447-0811-LL1-2INF-070	6269	Manganese	Lab Blank > MDL	< 1.9 µg/L	2.5 µg/L
5447-0811-LL1-INF-070	6269	Manganese	Lab Blank > MDL	< 1.9 µg/L	2.5 µg/L
Field Duplicate RPD					
5447-0811-LL1-2INF-070	6269	Iron	Field Duplicate exceeds UCL	< 40 RPD	200 RPD
5447-0811-LL1-INF-070	6269	Iron	Field Duplicate exceeds UCL	< 40 RPD	200 RPD

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Table 3-5
Total Organic Carbon Quality Control Outliers
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Sample ID(s) Requiring Qualification	SDG	Compound(s)	QC Outlier	QC Parameter Control Limit	QC Result
Blank					
5447-0811-LL1-2INF-070	6269	TOC	Lab Blank > MDL	< 0.052 mg/L	0.111 mg/L
5447-0811-LL1-2INF-070	6269	TOC	Lab Blank > MDL	< 0.052 mg/L	0.151 mg/L
5447-0811-LL1-INF-070	6269	TOC	Lab Blank > MDL	< 0.052 mg/L	0.183 mg/L
5447-0811-LL1-INF-070	6269	TOC	Lab Blank > MDL	< 0.052 mg/L	0.124 mg/L

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Table 4-1
Field Completeness
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Number of Samples Planned	Number of Samples Collected	Field Completeness
Nitrate	9	9	100%
Explosives	37	37	100%
Metals	3	3	100%
TOC	6	6	100%
TSS	5	5	100%
Volatiles	40	40	100%
Volatiles-Air	3	3	100%
Totals =	103	103	100.0%
Goal =			95%

Notes:

Number of Samples Planned includes field samples and field duplicate samples.

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Table 4-2
Analytical Completeness
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Analysis	Total Number of Parameters	Acceptable Data	Acceptable Data Completeness	Acceptable Data Completeness Goals	Quality Data	Quality Data Completeness	Quality Data Completeness Goals
Nitrate (Analyte Count - 1)	9	9	100%	90%	9	100%	80%
Explosives (Analyte Count - 6)	222	222	100%	90%	222	100%	80%
Metals (Analyte Count - 2)	6	6	100%	90%	6	100%	80%
TOC (Analyte Count - 1)	6	6	100%	90%	6	100%	80%
TSS (Analyte Count - 1)	5	5	100%	90%	5	100%	80%
Volatiles (Analyte Count - 6)	240	239	99.6%	90%	240	100%	80%
Volatiles-Air (Analyte Count - 1)	3	3	100%	90%	3	100%	80%
Totals =	491	490	99.8%	90%	491	100%	80%

Notes:

Total number of parameters includes field samples (includes data points from dilutions and/or reanalyses to be used in place of original data) and field duplicates (does not include field blanks or trip blanks).
Acceptable data includes data that has not been rejected or qualified as estimated (J/UJ). Data points for which the required corrective actions were taken or do not require corrective action do not count against the acceptable data completeness goal calculation (i.e., results exceeding the calibration range that were reanalyzed at dilutions within the calibration range).
Quality data is defined as all non-rejected data.

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Table 4-3
Project Completeness
Third Quarter 2011 Operations and Maintenance Sampling Event
Former Nebraska Ordnance Plant, Mead, Nebraska

Field	Analytical	Project Completeness
100.0%	100.0%	100.0%
Project Completeness Goal =		90%

Notes:

Analytical Completeness is the percentage of usable data (i.e. quality data completeness).
Project Completeness combines sampling and analytical protocols to access the expctations of the project as a whole. Project completeness is determined by comparing the percentage of samples / measurements that are determined to be usable to the total number of samples / measurements planned.

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Appendix A
Chain of Custody Records

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

Page 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 21 Suite 3
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Lab Use Only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Sampler's Name: Thares
Sampler's Signature:

Proj. No.: 5447
Project Name: FNOP Med

ANALYSIS REQUESTED: VOC's 8260B; Explosives 8330

Matrix[1]	Date	Time	Comp	Gr	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOC's 8260B	Explosives 8330	Lab/Sample ID (Lab Use Only)
	7-5	0750		X	5447-0711-320-125	3	2			X	X	
W	7-5	0752		X	5447-0711-340-125	3	2			X	X	
W	7-5	0755			5447-0711-360-125	3	2			X	X	
W	7-5	0800		X	5447-0711-380-125	3	2			X		
W	7-5	0842		X	5447-0711-AOP-INF-049	3	2			X	X	
W	7-5	0837		X	5447-0711-AOP-EFF2-049	3	2			X	X	
~~W~~	~~7-5~~	~~0802~~		~~X~~	~~5447-0711-EFF1-125~~	~~3~~		~~(1)~~		~~X~~		
W	7-5	0750		X	TRB-2320-072011	2				X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-11	1500	FedEx 8625-3615-3600	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant O&M July 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

TestAmerica Cannot accept verbal changes. Please Fax written changes to (802) 660-1919

TAL-8234(1007)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

Pg 1 of 1

CHAIN OF CUSTODY RECORD

Report to:	Invoice to:
Company: ECC	Company:
Address: 1746 Cole Blvd Bldg 21 Suite 350 Lakewood CO 80401	Address:
Contact: John Ryder	Contact:
Phone: 303-288-7607	Phone:
Fax: 303-288	Fax:
Contract/ Quote:	

ANALYSIS REQUESTED: VOC Method 8260

Lab Use Only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Sampler's Name: M Thars
Sampler's Signature: [signature]

Proj. No.: 5447002
Project Name: FNOP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOC Method 8260	Lab/Sample ID (Lab Use Only)
W	7.5	0803		X	5447-0711-EFF-		1	1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7.5-11	1500	FedEx 8675-3615-3610	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant O+M July 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 21 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

ANALYSIS REQUESTED: VOC's 8260B, Explosives 8330

Lab Use Only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Sampler's Name: Jim Thares
Sampler's Signature: [signature]

Proj. No.: 5447 022
Project Name: FNUP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOC's 8260B	Explosives 8330	Lab/Sample ID (Lab Use Only)
W	6.27	1214		x	5447-0711-INF-125	3	2			x	x	
W	6.27	1219		x	5447-0711-EFF-125	3	2			x	x	
W	6.27	1214		x	TRB-2INF-072011	2				x		

24 hr TAT ON ALL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6.27.11	1500	Fed Ex 8675-3615-3562	6.27.11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant O&M July 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TAL-8234(1007)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

pg 1 of 2

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 1 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-278-7607
Fax: 303-278-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 2 3 4 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Sampler's Name: Tim Thares
Sampler's Signature:
Proj. No.: 5447002
Project Name: FNOP Mead

ANALYSIS REQUESTED: VOC's 8260B; Explosives 8330; TOC 9060

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	No/Type of Containers[2] VOA	A/G 1 Lt.	250 ml	P/O	VOC's 8260B	Explosives 8330	TOC 9060	Lab/Sample ID (Lab Use Only)
W	7-27	1110		X	5447-0811-EW01-126	3				X			
W	7-27	1119		X	5447-0811-EW03-126		2				X		
W	7-27	1127		X	5447-0811-EW04-126		2				X		
W	7-27	1254		X	5447-0811-EW06-126		2				X		
W	7-27	1247		X	5447-0811-EW07-126		2				X		
W	7-27	1236		X	5447-0811-EW09-126		2				X		
W	7-27	1236		X	5447-0811-EW09-126A		2				X		
W	7-27	1156		X	5447-0811-EW11-126	3	2	1		X	X	1	
W	7-27	1132		X	5447-0811-EW14-126		2				X		
W	7-28	1122		X	5447-0811-EW16-126		2				X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-28-11	1500	[signature] 8675-3615-3654	7-28-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant U&M
August 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

TestAmerica Cannot accept verbal changes. Please Fax written changes to (802) 660-1919

TA 4(1007)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

pg 2/2

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 21 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-6017
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Sampler's Name: Tim Thares
Sampler's Signature:

Proj. No.: 5447.02
Project Name: FNOP Mac

Analysis Requested: VOC's 8260B; Explosives 8330; TSS; TOC

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOC's 8260B	Explosives 8330	TSS	TOC	Lab/Sample ID (Lab Use Only)
	7-27	1200		X	5447-0811-AOP-EFFA-047	3	2			X	X			
W	7-27	1110		X	TRB-2EW01-082011					X				
W	7-28	0800		X	5447-0811-INF-126	3	3	1		X	X	X	X	
W	7-28	0800		X	5447-0811-DINF-126	3	3	1		X	X	X	X	
W	7-28	0800		X	5447-0811-INF-MS	3	2	1		X	X		X	
W	7-28	0800		X	5447-0811-INF-MSD	3	2	1		X	X		X	
W	7-28	0810			5447-0811-310-126	3	2			X	X			
W	7-28	0815		X	5447-0811-330-126	3	2			X	X			
W	7-28	0820		X	5447-0811-360-126	3	2			X	X			
W	7-28	0823		X	5447-0811-380-126	3	2			X	X			
~~W~~	~~7-28~~	~~0827~~		~~X~~	~~5447-0811-EFF-126~~	~~3~~	~~2~~			~~X~~	~~X~~			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	7-28-11	1500	Fedex 8675-3615-3654	7-28-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant UOM
August 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

TestAmerica Cannot accept verbal changes. Please Fax written changes to (802) 660-1919

TAL-8234(1007)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

page 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 1 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

ANALYSIS REQUESTED: VOCs 8260B; Explosives 8330

Lab Use Only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Sampler's Name: Tim Thares
Sampler's Signature: [signature]

Proj. No.: 5447002
Project Name: FNOP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Lab/Sample ID (Lab Use Only)
W	8-3	0800		X	5447-0811-350-12 G					
W	8-3	0805		X	5447-0811-EFF-12 G					
W	8-3	0800		X	TRB-2350-082011					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	8-3-11	1500	Fed Ex 8675-3615-3698	8-3-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant O&M 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

Page 1/1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 1 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Analysis Requested: Nitrates 9056

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Sampler's Name: Jim Thares
Sampler's Signature:

Proj. No.: 5447042
Project Name: FNSP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Nitrates 9056	Lab/Sample ID (Lab Use Only)
W	8-3	0805		X	5447-0811-EFF-126		1	1		X	
W	8-3	0805		X	5447-0811-2EFF-126		1	1		X	
W	8-3	0805		X	5447-0811-EFF-MS		1	1		X	
W	8-3	0805		X	5447-0811-EFF-MSD		1	1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	8-3-11	1500	Fed Ex 8675-3615-3687	8-3-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: Main Plant O&M August 2011 Repeat

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

Page 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: Ecc
Address: 1996 Colo Blvd Bldg 21 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

ANALYSIS REQUESTED: VOCs 8260C

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Sampler's Name: Tim Thaler
Sampler's Signature: [signature]

Proj. No.: 5447002
Project Name: FNDP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	VOCs 8260C	Lab/Sample ID (Lab Use Only)
W	7-5	0820		X	5447-0711-LL1-INF-069	3				X	
W	7-5	0825		X	5447-0711-LL1-EFF-069	3				X	
W	7-5	0820		X	TRB-LL1-2INF-072011	2				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-11	1500	Fed Ex 8673-3645-3600	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: LL1 O&M July 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other _____

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

pg 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 21 Suite 350
Lakewood CO 80401
Contact: John Ryder
Phone: 303-298-7600
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Sampler's Name: Jim Thomas
Sampler's Signature:

Proj. No.: 5447002
Project Name: FNOP Mead

Analysis Requested: Nitrate Nitrite

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Nitrate Nitrite	Lab/Sample ID (Lab Use Only)
W	7-5	0825		X	5447-0711-221-EFF-069		1	1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-11	1500	Fed Ex 8675 3615 3610	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: LL1 O+M July 2011

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

Pg 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1746 Cole Blvd Bldg 21 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7837
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

Sampler's Name: Jim Theres
Sampler's Signature: [signature]

Proj. No.: 5447.002
Project Name: FNDP Mead

ANALYSIS REQUESTED: VOCs 8260B

Lab Use Only
Due Date:
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	No/Type of Containers[2] VOA	A/G 1 Lt.	250 ml	P/O	VOCs 8260B	Lab/Sample ID (Lab Use Only)
W	7-5	0845		X	5447-0711-LL4-INF	3				X	
W	7-5	0847		X	5447-0711-LL4-EFF	3				X	
W	7-5	0845		X	TRB-LL4-2 INF-070211	2				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-11	1500	FedEx 8675-3615-3600	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: LL4 July Samples

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix: WW - Wastewater, W - Water, S - Soil, L - Liquid, Air bag, C - Charcoal Tube, SL - Sludge, O - Oil
[2]Container: VOA - 40 ml vial, A/G - Amber / Or Glass 1 Liter, 250 ml G - Wide mouth, P/O - Plastic or other

TestAmerica Cannot accept verbal changes. Please Fax written changes to (802) 660-1919

TAL-8234(1007)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403 Tel: 802 660 1990

pg 1 of 1

CHAIN OF CUSTODY RECORD

Report to:
Company: ECC
Address: 1246 Cole Blvd Bld 2 Suite 350
Lakewood Co 80401
Contact: John Ryder
Phone: 303-298-7607
Fax: 303-298-7830
Contract/ Quote:

Invoice to:
Company:
Address:
Contact:
Phone:
Fax:

ANALYSIS REQUESTED: Nitrate 9056

Lab Use Only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Custody Seal N / Y
Intact N / Y

Screened For Radioactivity ☐

Sampler's Name: Tim Thares
Sampler's Signature: [signature]

Proj. No.: 5447.002
Project Name: FNOP Mead

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Nitrate 9056	Lab/Sample ID (Lab Use Only)
W	7-5	0847		X	5447-0711-LL4-EFF		1	1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7-5-11	1500	Fed Ex 8675 3615 3410	7-5-11	1500
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Remarks: LL4 July Samples

Client's delivery of samples constitutes acceptance of TestAmerica terms and conditions contained in the Price Schedule.

[1]Matrix WW - Wastewater W - Water S - Soil L - Liquid A - Air bag C - Charcoal Tube SL - Sludge O - Oil
[2]Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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TAL-8234(1007)

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager John Ryder
Collected by: (Print and Sign) Jim Thomas
Company ECC Email
Address 1746 Cole Blvd B(D2) Suite 350 City Lakewood State Co Zip 80401
Phone 303-298-7607 Fax 303-298-7830

Project Info:
P.O. #
Project # 5447 002
Project Name FNUP Mead

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	5447-0711-LL4-AIR-EFF	34577	7-5-11	0850	TCE T.O. 15	24	0		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Jim Thomas	7-5-11 1500	Fedex 8675-3615-3632	7-5-11 1500
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: LL4
July 2011

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
					Yes No None	

Appendix B
Field Notes

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FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report: _____
Client: _____
Report No. 125 .

Leader: _____
Date: July 5, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled main plant

Weather Information:
Sky: Partly Cloudy
Precipitation: None
Humidity: 89%

Temp. Max/Min: 73 degrees .
Wind Speed/Direction: SSE. @ 2 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity		pH	Temp	Scond
0750	Sampled GAC Vessel 320 Lead	5447-0711-320-125	7.4	15.7	572
0752	Sampled GAC Vessel 340 Lead	5447-0711-340-125	7.4	13.9	572
0755	Sampled GAC Vessel 360 Lead	5447-0711-360-125	7.4	13.1	572
0800	Sampled GAC Vessel 380 Lead	5447-0711-380-125	7.3	12.5	572
	All GAC Vessel samples – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative – Explosives				
0803	Sampled Effluent	5447-0711-EFF-125	7.3	12.8	570
	1 – 500ml poly bottle – no preservative – Nitrates				
	1 – 500ml poly bottle – H2SO4 – Nitrates				
0842	Sampled AOP Influent	5447-0711-AOP-INF-049	7.3	16.1	664
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative - Explosives				
0837	Sampled AOP Effluent	5447-0711-AOP-EFF2-049	7.3	14.9	675
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative - Explosives				

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0745– 0750 Calibrate pH and S cond meters
pH 7.0 = 7.0 S cond. 1409 = 1378/1409

Remarks: Samples shipped to Test America Burlington
Nitrate samples shipped to Test America Denver
Odd numbered GAC units off line.
Influent and Effluent sampled on 6/27/11 for VOC's and Explosives.

Total Hours Worked: 6

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

7-5-11 Sample Event #125

Time	Calibrate pH + Sound Meters
0745	pH 7.0 = 7.0 Sound 1409 - 1378/1409
0750	Sample ~~plant~~ GAC 320 IX 5447-0711-320-125
0752	Sample GAC 340 5447-0711-340-125
0755	Sample GAC 360 5447-0711-360-125
0800	Sample GAC 380 5447-0711-380-125
0803	Sample Plant Effluent 5447-0711-EFF-125
0842	Sample AOP Influent 5447-0711-AOP-INF-049
0837	Sample AOP Effluent 5447-0711-AOP-EFFA-049
NOT sampled	Sample EW1 ~~5447-0711-EW01-125~~

Influent and Effluent VOC - Explosives sampled on 6-27-11

73°F Partly Cloudy
SSE @ 2 mph
82 Humidity

7-5-11 Sample Event # 125

Sampling Summary Bottles Filled

INF		7.3	572	13.4				
ID	Time	pH	Cond	Temp	NDMA	Explosives	Nitrates	
320	0750	7.4	572	15.7	3	2	-	
340	0752	7.4	572	13.9	3	2	-	
360	0755	7.4	572	13.1	3	2	-	
380	0800	7.3	572	12.5	3	2	-	
EFF	0803	7.3	570	12.8	-	-	2	
AOP-INF	0842	7.3	664	16.1	3	2	-	
AOP-EFF2	0837	7.3	675	14.9	3	2	-	
~~EW-1~~					3	-	-	Not sampled

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3600

Nitrate Samples shipped overnight to Test America Denver via Fed Ex Air Bill # 8675-3615-3600

7-5-11 Sample Event #69

Time Calibrate pH & Sond meter

0745 pH 7.0 = 7.0 Sond 1409 = 1378/1409

0820 Sample plant Influent 5447-0711-LL1-INF-069

0825 Sample plant Effluent 5447-0711-LL1-EFF-069

Sample Summary Bottles Filled

ID	Time	pH	Sond	Temp	VOC's	Nitrates
INF	0820	7.2	571	14.3	3	-
EFF	0825	8.2	575	14.3	3	2

Samples shipped overnight to ~~Fed Ex~~ Test America Burlington via Fed Ex Air Bill # 8475-3615-3600

Nitrate samples shipped overnight to Test America Denver via FedEx Air Bill # 8475-3615-3610

73°F Partly Cloudy
SSE @ 2 mph
89% Humidity

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 069

Leader:
Date: July 5, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled LL1 Plant

Weather Information:
Sky: Partly Cloudy
Precipitation: None
Humidity: 89%

Temp. Max/Min: 73 degrees
Wind Speed/Direction: SSE @ 2 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity	pH	Temp	Scond
0820	Sampled Influent 5447-0711-LL1-INF-069	7.2	14.3	571
	Influent samples – 3 – 40ml bottles –HCL – VOC'S			
0825	Sampled Effluent 5447-0711-LL1-Eff-069	8.2	14.3	575
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S			
	1 – 1Lt poly bottle – no preservative – Nitrates			
	1 – 250ml poly bottle – H2SO4 – Nitrates			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0745-- 0750 Calibrate pH and S cond meters
pH 7.0 =7.0 S cond. 1409 = 1378/1409

Remarks: Water samples sent to Test America Burlington. Nitrates were sent to Test America Denver.

Total Hours Worked: 2

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

7-5-11 Sample 224

Time — Calibrate pH & Cond meters

0745 — pH 7.0 = 7.0 Cond 1409 = 1398/1409

0845 Sampled plant Influent 5447-0711-224-INF

0847 Sampled plant Effluent 5447-0711-224-EFF

0850 Sample Carbon Air 5447-0711-224-AIR-EFF

Sampling Summary Bottles Filled

ID	Time	pH	Cond	Temp	VOCs	Nitrite	Air	
INF	0845	7.3	580	15.2	3	-	-	
EFF	0847	8.2	582	14.1	3	2	-	
AIR-EFF	0850				-	-	1	24

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3600

Nitrite sample shipped overnight to Test America Denver via Fed Ex Air Bill # 8675-3615-3610

73°F Partly Cloudy
5 SE @ 2mph
88% humidity

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 0

Leader:
Date: July 5, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled LL4 Plant

Weather Information:
Sky: Partly Cloudy
Precipitation: None
Humidity: 89%

Temp. Max/Min: 73 degrees
Wind Speed/Direction: SSE. @ 2 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity	pH	Temp	Scond
0845	Sampled Influent 5447-0711-LL4-INF	7.3	15.2	580
	Influent samples – 3 – 40ml bottles –HCL – VOC'S			
0847	Sampled Effluent 5447-0711-LL4-EFF	8.2	14.1	582
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S			
	1 – 1Lt poly bottle – no preservative – Nitrates			
	1 – 250ml poly bottle – H2SO4 – Nitrates			
0850	Sampled Air Effluent 5447-0711-LL4-AIR- EFF			
	Effluent sample – 1 – 1 Lt Canister – No Preservative – Air Sample			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0745– 0750 Calibrate pH and S cond meters
pH 7.0 =7.0 S cond. 1409 = 1378/1409

Remarks: Water samples sent to Test America Burlington. Nitrates were sent to Test America Denver.
Air sample sent to Air Toxics

Total Hours Worked: 2

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 126

Leader:
Date: August 3, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled main plant

Weather Information:
Sky: Sunny
Precipitation: None
Humidity: 78%

Temp. Max/Min: 71 degrees
Wind Speed/Direction: N. @ 6 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity	pH	Temp	Scond
0800	Sampled GAC Vessel 350 Lead 5447-0811-350-126	7.2	16.0	645
	All GAC Vessel samples – 3 – 40ml bottles –HCL – VOC'S			
	2 – 1Lt amber glass bottle – no preservative – Explosives			
0805	Sampled Effluent 5447-0811-EFF-126	7.2	13.7	649
0805	Sampled Effluent 5447-0811-2EFF-126	7.2	13.7	649
0805	Sampled Effluent 5447-0811-EFF-MS	7.2	13.7	649
0805	Sampled Effluent 5447-0811-EFF-MSD	7.2	13.7	649
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S			
	2 – 1Lt amber glass bottle – no preservative - Explosives			
	1 – 500ml poly bottle – no preservative – Nitrates			
	1 – 500ml poly bottle – H2SO4 – Nitrates			
	QC/MS/MSD nitrates only.			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0720– 0725 Calibrate pH and S cond meters
pH 7.0 = 7.0 S cond. 1409 = 1377/1409

Remarks: Samples shipped to Test America Burlington
Nitrate samples shipped to Test America Denver

Total Hours Worked: 4

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 126

Leader:
Date: July 28, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled main plant

Weather Information:
Sky: Cloudy
Precipitation: None
Humidity: 98%

Temp. Max/Min: 73 degrees
Wind Speed/Direction: Calm

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity		pH	Temp	Scond
0800	Sampled Influent	5447-0811-INF-126	7.2	13.8	597
0800	Sampled Influent	5447-0811-2INF-126	7.2	13.8	597
0800	Sampled Influent	5447-0811-INF-MS	7.2	13.8	597
0800	Sampled Influent	5447-0811-INF-MSD	7.2	13.8	597
	Influent samples – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative – Explosives				
	2 – 40ml bottles – H2SO4 – TOC				
	1 – 1Lt poly bottle – No preservative – T.S.S.				
	No MS/MSD for TSS.				
0810	Sampled GAC Vessel 310 Lead	5447-0811-310-126	7.2	13.0	592
0815	Sampled GAC Vessel 330 Lead	5447-0811-330-126	7.2	13.0	592
0820	Sampled GAC Vessel 360 Lead	5447-0811-360-126	7.3	13.3	592
0823	Sampled GAC Vessel 380 Lead	5447-0811-380-126	7.2	13.0	592
	All GAC Vessel samples – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative – Explosives				

1207	Sampled AOP Effluent 5447-0811-AOP-EFF2-047	7.1	16.8	665
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S			
	2 – 1Lt amber glass bottle – no preservative - Explosives			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0750– 0755 Calibrate pH and S cond meters
pH 7.0 = 7.0 S cond. 1409 = 1409

Remarks: Samples shipped to Test America Burlington

Total Hours Worked: 6

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

7-28-11 Sample Event # 126

Time Calibrate pH & Scan Meter

0750 pH 7.0 = 2.0 Scan 1409 = 1409

0800 Sampled plant Influent 5447-0811-INF-126

0800 Sampled plant Influent 5447-0811-DINF-126

0800 Sample plant Influent 5447-0811-INF-MS

0800 Sampled plant Influent 5447-0811-INF-MSD

0810 Sampled GAC 310 5447-0811-310-126

0815 Sampled GAC 330 5447-0811-330-126

0820 Sampled GAC 360 5447-0811-360-126

0823 Sampled GAC 380 5447-0811-380-126

0827 Sampled plant Effluent 5447-0811-EFF-126

0827 Sampled plant Effluent 5447-0811-DEFF-126

NOT TAKEN 0827 Sampled plant Effluent 5447-0811-EFF-MS

0827 Sampled plant Effluent 5447-0811-EFF-MSD

73° cloudy

Calm

88% Humidity

9-28-11

Sample Event # 126 cont

Sampling Summary Bottles Filled

ID	Time	pH	Sound	Temp	Odor	Explosion	TSS	TOC	Sulfide	
INF	0800	7.2	597	13.8	3	2	1	1	-	
2INF	0800	7.2	597	13.8	3	2	1	1	-	
INF MS	0800	7.2	597	13.8	3	2	-	1	-	
INF MSD	0800	7.2	597	13.8	3	2	-	1	-	
310	0810	7.2	592	13.0	3	2	-	-	-	
330	0815	7.2	592	13.0	3	2	-	-	-	
360	0820	7.3	592	13.3	3	2	-	-	-	
380	0823	7.2	592	13.0	3	2	-	-	-	
EFF	0827	7.2	593	12.8	3	2	-	-	2	
2EFF	0827	7.2	593	12.8	-	-	-	-	2	Not Tested
EFF MS	0827	7.2	593	12.8	-	-	-	-	2	
EFF MSD	0827	7.2	593	12.8	-	-	-	-	2	

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3654

Nitrate samples shipped overnight to Test America Denver via Fed Ex Air Bill # 8675 3615 364

7-27-11 Sampling Event 126 cont.

Time		
	Calibrate pH & Sond meters	
1050	pH 7.0 - 7.0	Sond 1409 - 1419/1409
1110	Sampled EW-1	5447-0811-EW01-126
1119	Sampled EW-3	5447-0811-EW03-126
1127	Sampled EW-4	5447-0811-EW04-126
1254	Sampled EW 6	5447-0811-EW06-126
1247	Sampled EW-7	5447-0811-EW07-126
1236	Sampled EW-9	5447-0811-EW09-126
1156	Sampled EW-11	5447-0811-EW11-126
1132	Sample EW-14	5447-0811-EW14-126
1122	Sample EW-16	5447-0811-EW16-126
1207	Sampled AOP Effluent	5447-0811-AOP-EFF2-044

87° Partly cloudy

SSE @ 5

58% Humidity.

7-27-11 Sampling Event # 126 cont.

Sampling Summary Bottles Filled

ID	Time	pH	Cond	Temp	VOCs	Explosive	TOC
EW1	1110	7.3	760	17.3	3	-	-
EW3	1119	7.5	623	15.5	-	2	-
EW4	1127	7.3	462	14.6	-	2	-
EW10	1254	7.3	504	15.2	-	2	-
EW7	1247	7.4	513	16.2	-	2	-
EW9	1236	7.4	430	16.6	-	4	-
EW11	1156	7.3	666	15.2	3	2	1
EW14	1132	7.3	477	14.7	-	2	-
EW16	1122	7.4	511	14.6	-	2	-
AOP-EFF2	1207	7.1	665	16.8	3	2	-

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3454

Sample Event # 126 cont.

Time calibrate pH & Sond meters

0725 pH 7.0 = 7.0 Sond 1407 = 1377/1409

0800 Sample GAC 350 5447-0811-350-126

0805 Sample Plant Effluent 5447-0811-Eff-126

0805 Sample plant Effluent 5447-0811-2Eff-126

0805 Sample plant Effluent 5447-0811-Eff-MS

0805 Sample plant Effluent 5447-0811-Eff-MSD

Sampling Summary Bottles Filled

ID	Time	pH	Sond	Temp	2oz	8oz-Sivoc	8oz-Nitrate
350	0800	7.2	6-65	16.0	3	2	–
Eff	0805	7.2	649	13.7	3	2	2
2Eff	0805	7.2	649	13.7	–	–	2
Eff MS	0805	7.2	649	13.7	–	–	2
Eff MSD	0805	7.2	649	13.7	–	–	2

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3415-3698

Nitrate samples shipped overnight to Test America Denver via Fed Ex Air Bill # 8675-3615-3687

71° Sunny
NE 6 MPH
78% Humidity

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 126

Leader:
Date: July 27, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled Extraction Wells

Weather Information:
Sky: Partly Cloudy
Precipitation: None
Humidity: 58%

Temp. Max/Min: 87 degrees
Wind Speed/Direction: SSE. @ 5 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity		pH	Temp	Scond
1110	Sampled EW-1	5447-0811-EW01-126	7.3	17.3	760
1119	Sampled EW-3	5447-0811-EW03-126	7.5	15.5	623
1127	Sampled EW-4	5447-0811-EW04-126	7.3	14.6	462
1254	Sampled EW-6	5447-0811-EW06-126	7.3	15.2	504
1247	Sampled EW-7	5447-0811-EW07-126	7.4	16.2	513
1236	Sampled EW-9	5447-0811-EW09-126	7.4	16.6	430
1156	Sampled EW-11	5403-0811-EW11-126	7.3	15.2	666
1132	Sampled EW-14	5447-0811-EW14-126	7.3	14.7	477
1122	Sampled EW-16	5447-0811-EW16-126	7.4	14.6	511
	EW-1 well samples	3 – 40ml bottles –HCL – VOC'S			
	All other well samples	2 – 1Lt amber glass bottle – no preservative – Explosives			
	EW-11 well samples	1 – 250ml amber bottle – H2SO4 - TOC			
		3 – 40ml bottles –HCL – VOC'S			
		2 – 1Lt amber glass bottle – no preservative – Explosives			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 1050 – 1055 Calibrate pH and S cond meters
pH 7.0 = 7.0 S cond. 1409 = 1419/1409

Remarks: Samples shipped to Test America Burlington

Total Hours Worked: 8

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

7-28-11 Sample Event #70

Time Calibrate pH & Cond meter

0750 pH 7.0, 7.0 Cond 1409 = 1409

0900 Sample plant Influent 5447-0811-LL-INF-070

0900 Sample plant Influent 5447-0811-LL-2INF-070

0900 Sample plant Influent 5447-0811-LL-INF-MS

0900 Sample plant Influent 5447-0811-LL-INF-MSD

0915 Sample plant Effluent 5447-0811-LL-EFF-070

0915 Sample plant Effluent 5447-0811-LL-2EFF-070

0915 Sample plant Effluent 5447-0811-LL-EFF-MS

0915 Sample plant Effluent 5447-0811-LL-EFF-MSD

0928 Sample Carbon Air 5447-0811-LL-AIR-EFF-070

0928 Sample Carbon Air 5447-0811-LL-2AIR-EFF-070

73 Cloudy

Calm

58% Humidity

7-28-11 Sample Event #70

Sampling Summary Bottles Filled

ID	Time	pH	Sond	Temp	Rock	Ex Positive	TSS	TOC	Metals	Nitrates	TCE
INF	0900	7.0	580	14.0	3	2	1	1	1	–	–
2INF	0900	7.0	580	14.0	3	2	1	1	1	–	–
INFMS	0900	7.0	580	14.0	3	2	–	1	1	–	–
INFMSD	0900	7.0	580	14.0	3	2	–	1	1	–	–
EFF	0915	8.3	575	14.4	3	2	–	–	–	2	–
2EFF	0915	8.3	575	14.4	–	–	–	–	–	2	–
EFFMS	0915	8.3	575	14.4	–	–	–	–	–	2	–
EFF.MSD	0915	8.3	575	14.4	–	–	–	–	–	2	–
Air	0928	–	–	–	–	–	–	–	–	1	–
2Air	0928	–	–	–	–	–	–	–	–	1	–

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3654

Nitrate samples shipped overnight to Test America Denver via Fed Ex Air Bill # 8675-3615-3643

Air Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675-3615-3674

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 070

Leader:
Date: July 28, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled LL1 Plant

Weather Information:
Sky: Cloudy
Precipitation: None
Humidity: 98%

Temp. Max/Min: 73 degrees
Wind Speed/Direction: Calm

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity		pH	Temp	Scond
0900	Sampled Influent	5447-0811-LL1-INF-070	7.0	14.0	580
0900	Sampled Influent	5447-0811-LL1-2INF-070	7.0	14.0	580
0900	Sampled Influent	5447-0811-LL1-INF-MS	7.0	14.0	580
0900	Sampled Influent	5447-0811-LL1-INF-MSD	7.0	14.0	580
	Influent samples – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative – Explosives				
	2 – 40ml bottles – H2SO4 – TOC				
	1 – 500ml poly bottle – No preservative – T.S.S. Except MS/MSD				
	1 – 500ml poly bottles – HNO3 – Metals				
0915	Sampled Effluent	5447-0811-LL1-Eff-070	8.3	14.4	575
0915	Sampled Effluent	5447-0811-LL1-2Eff-070	8.3	14.4	575
0915	Sampled Effluent	5447-0811-LL1-Eff-MS	8.3	14.4	575
0915	Sampled Effluent	5447-0811-LL1-Eff-MSD	8.3	14.4	575
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S				
	2 – 1Lt amber glass bottle – no preservative - Explosives				
	1 – 1Lt poly bottle – no preservative – Nitrates				
	1 – 250ml poly bottle – H2SO4 – Nitrates				
	QC and MS/MSD Nitrates only				

0928	Sampled Carbon Air Effluent 5447-0811-AIR-EFF-070
0928	Sampled Carbon Air Effluent 5447-0811-AIR-EFF-070
	Air sample – 1 – 1 Lt Canister no preservative Air sample

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 0750– 0755 Calibrate pH and S cond meters
pH 7.0 =7.0 S cond. 1409 = 1409

Remarks: Water samples sent to Test America Burlington. Nitrates were sent to Test America Denver. Air samples sent to Test America Burlington.

Total Hours Worked: 8

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

8-15-11 Sample LL4

Time Calibrate pH & Cond meters

1015 pH 7.0 = 7.0 Cond 1409 = 1455/1409

Sampled plant Influent 5447.0811.LL4-INF

Sampled plant EFFluent 5447.0811-LL4-EFF

Sampled Carbon Air 5447.0811 LL4.AIR-EFF

Sampling Summary By Hlg, Gilled

ID	Time	pH	Cond	Temp	VOCs	Explosives	Mass	TOC	Metals	Nitrates	TSS	
INF	1047	7.2	575	15.6	3	2	1	1	1	-	-	
EFF	1055	8.2	565	14.3	3	2	-	-	-	2	-	
~~AIR~~	~~TI~~				-	-	-	-	-	-	1	N.S.

Samples shipped overnight to Test America Burlington via Fed Ex Air Bill # 8675.3615. ~~3723~~ 3724

Nitrate samples shipped overnight to Test America Denver via Fed Ex Air Bill # 8675-3615. ~~3723~~ 3713

~~Air sample shipped overnight to Test America Burlington via Fed Ex Air Bill #~~ TI NOT sampled.

Cloudy 76°

SSE @ 10 MPH

83% Humidity

FIGURE 9-1
Environmental Chemical Corporation
1746 Cole Boulevard, Building 21, Suite 350
Lakewood, CO 80401

Daily Chemical Quality Control Report

Field Team: Tim Thares/Vince Stallbaumer
Report:
Client:
Report No. 0

Leader:
Date: August 15, 2011
Contract No: 5447-002
Site: Mead NOP

Description and Location of Work: Sampled LL4 Plant

Weather Information:
Sky: Cloudy
Precipitation: None
Humidity: 83%

Temp. Max/Min: 76 degrees
Wind Speed/Direction: SSE, @ 10 mph

Contractor/Subcontractor and Area of Responsibility:

Work Performed Today: Indicate location and description of work performed.

Time	Activity	pH	Temp	Scond
1049	Sampled Influent 5447-0811-LL4-INF	7.2	15.6	575
	Influent samples – 3 – 40ml bottles –HCL – VOC'S			
	2 – 1Lt Amber bottles – no preservative – Explosives			
	1 – 250ml bottles – H2SO4 – TOC			
	1 – 1 Lt poly bottle – No preservative – T.S.S.			
	1 – 250ml bottles – HNO3 – Metals			
1055	Sampled Effluent 5447-0811-LL4-EFF	8.2	14.3	565
	Effluent sample – 3 – 40ml bottles –HCL – VOC'S			
	2 – 1Lt Amber bottles – no preservative – Explosives			
	1 – 1Lt poly bottle – no preservative – Nitrates			
	1 – 250ml poly bottle – H2SO4 – Nitrates			

Field Instrument Measurements: pH, S cond., Temp (degree C)

Calibration: 1015–1020 Calibrate pH and S cond meters
pH 7.0 =7.0 S cond. 1409 = 1455/1409

Remarks: Water samples sent to Test America Burlington. Nitrates were sent to Test America Denver.

Total Hours Worked: 2

Prepared by: (Signature) (Print) Tim Thares

Chain of Custody's on file at the plant.

Appendix C
Reference Sheet
Data Validation Qualifiers
Drinking Water Standards

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Data Qualifiers and Drinking Water Standards Reference Sheet
Former Nebraska Ordnance Plant, Mead, Nebraska

Any qualifiers (i.e. U, J, or R) listed after a result are assigned during the data validation process. Data validation is a procedure which involves the review of quality control data provided by the laboratory. This review is followed by the assignment of data qualifiers (if necessary) which indicate the reliability of a result to the reader. Data validation is performed by a chemist employed outside of the laboratory or associated government installations to ensure accuracy in data reporting. A description of qualifiers is provided below.

No qualifier

- If a result has no assigned qualifier, the contaminant was detected, and the reader can be confident that the concentration is exact.

"U"

- A result followed by a "U" qualifier means that the contaminant was undetected, or not detected by the instrument.

"UJ"

- A result followed by a "UJ" qualifier means that the contaminant was not detected, but the associated detection level is not certain (estimated). For example, if a value is followed by a "UJ", the contaminant was not detected, but the associated detection level is in question. The detection level is in question because one or more of the laboratory quality control indicators do not meet acceptance criteria. The amount that the indicator fell outside of the criteria may be used as a rough estimate of how much the actual detection level differs from the stated one. Typically, this is a 10-30% difference.

"UR"

- A result followed by a "UR" qualifier means that the contaminant was not detected, but there is strong doubt that the associated detection level is accurate. For example, if a value is followed by a "UR", the contaminant was not detected, but the associated detection level is in strong doubt. The detection level is in doubt because results are unacceptable for a quality control indicator. In this case, the detection level cannot be estimated.

"J"

- A result followed by only a "J" qualifier means that the contaminant was detected, but there is some question that the stated concentration is exact. For example, if a result is "0.5 J", the contaminant was detected, but there is some question that the concentration is exactly 0.5. A "J" qualifier may be applied for two reasons: (1) the contaminant was detected below the reporting limit; or (2) the contaminant was detected, but one or more quality control indicators did not meet acceptance criteria. The reporting limit is equal to the concentration of the lowest standard used by the laboratory to calibrate the instrument. The reporting limit is the minimum concentration that can be stated with complete confidence.

“R”

- A result followed by only an “R” qualifier means that the contaminant was detected, but there is strong doubt that the concentration is exact. For example, if a result is “0.5 R”, the contaminant was detected, but there is strong doubt that the concentration is exactly 0.5. The concentration is in doubt because results are unacceptable for a quality control indicator. In this case, the detected concentration cannot be estimated. For comparison purposes, detected results are reported in the results letters with available Environmental Protection Agency drinking water standards. These standards include the maximum contaminant level (MCL) and various health advisories (HA). A description of the drinking water standards is provided below.

“MCL”

- The maximum contaminant level is the highest concentration of a contaminant that is allowed in drinking water. Maximum contaminant levels are enforceable Federal standards.

“HA”

- Health advisories provide estimates of acceptable drinking water concentrations for a chemical substance based on health effects information. Health advisories are not enforceable Federal standards, but serve as a technical guidance to assist Federal, State, and local officials.

Appendix D

Analytical Results on Compact Disc Summary Forms and Raw Data

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Appendix G

Historical Detections spreadsheet of TCE and RDX for Monitoring Wells, Water Supply Wells and Surface Water Locations (on CD)

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